CL5000 Series

Service Manual

(English)

Rev. 2014. 12. 11

Table of Contents

1. Proper Operation 5
    1.1 Introduction 5
    1.2 Model and Specification 6
    1.3 Environmental Conditions & Safety 7
    1.4 Leveling and Foot Location 8
    1.5 Power Requirements 10
2. Classification 11
    2.1 Scale Overview 11
    2.2 Display and Indicators 12
    2.3 Printer 13
    2.4 Communication 14
    2.5 Key Pad 15
3. Getting Started 16
    3.1 Sealing Method 16
    3.2 Installation of the Label Roll 16
    3.3. Turning Power On/Off 18
    3.4 Program Menu and Tree 19
        3.4.1 How to access the Program Mode 19
        3.4.2. Program Menu Tree 20
        3.4.3 Calibration Menu Tree 22
4. Calibration Mode 23
    4.1 Calibration 23
        4.1.1. Span Calibration (Menu Code 8110) 24
        4.1.2 Span/Zero Fine Adjust (Menu Code 8120) 25
        4.1.3 Capacity & Units (Menu Code 8130) 27
        4.1.4 Gravity Constant (Menu Code 8140) 28
        4.1.5 Percent Calibration (Menu Code 8150) 29
        4.1.6 Linearity Adjust (Menu Code 8160) 30
        4.1.7 Zero & Tare Setting (Menu Code 8170) 31
    4.2 Factory Setting (Menu Code 8180) 32
        4.2.3 A/D Initialize (Menu Code 8183) 32
        4.2.4 Linearity Fine Adjust (Menu Code 8184) 33
        4.3.1 Clear Report (Menu Code 8211) 34
        4.3.2 Clear All PLU (Menu Code 8212) 34
        4.3.3 Clear All Table (Menu Code 8213) 34
        4.3.4 Clear Report, PLU, Table (Menu Code 8214) 34
        4.5.1 Print Mode (Menu Code 8310) 36

4.5.2 Label/Ticket Size (Menu Code 8320) 36
4.5.3 Sensor Calibration (Menu Code 8330) 36
4.5.4 Sensor & Motor (Menu Code 8340) 36
4.5.5 Print Intensity (Menu Code 8350) 36
4.5.6 Adjust Feed Length (Menu Code 8360) 37
4.5.7 Label Pre-print (Menu Code 8370) 37
4.5.8 Printer Initialize (Menu Code 8380) 37
4.6 Network Options 38
4.6.1 Enable Interface (Menu Code 8410) 38
4.7 Self Test 38
4.7.1 Display Test (Menu Code 8510) 38
4.7.2 A/D Test (Menu Code 8520) 38
4.7.3 Keyboard Test (Menu Code 8530) 39
4.7.4 Chess Print (Menu Code 8540) 40
4.7.5 Printer Sensor Test (Menu Code 8550) 40
4.7.6 Memory Information (Menu Code 8560) 41
4.7.7 Firmware Version (Menu Code 8570) 41
5. Parameter 42
5.1 Factory Setting (para 800~999) 42
5.2 Dealer Setting (para 500~799) 47
6. Servicing & Parts Replacement 68
6.1 Platform Safety Overload Adjustment 69
6.2 Removing the Upper Case 70
6.3 Main board Replacement 72
6.4 Power Supply Replacement 73
6.5 Load Cell & AD Converter Replacement 74
6.6 Print Assembly Replacement 75
6.7 Display Replacement 76
6.8 Keyboard Replacement (With/Without breaking CAL seal) 77
7. Installing Options 78
7.1 Installing Ethernet Card 78
7.2 Installing Wireless Lan Card 79
7.3 Installing Memory Expansion Card 79
8. Update 80
8.1. Firmware update 80
9. Schematic Diagrams 84
9.1 System Block Diagram 84
9.2 Connection Diagram 85
9.3 I/O Pin Connection 86

9.4 Main PCB 87
9.5 A/D PCB 91
9.6 Display PCB 92
9.7 I/O PCB 97
9.8 Printer I/O PCB 98
9.9 Slot PCB 99
9.10 Expansion Memory PCB 100
9.11 Wired LAN PCB 101
9.12 Wireless LAN PCB 102
9.13 CF Card PCB 103
10. Exploded Views 104
10.1 Scale Assy (B,P,R-type) 104
10.2 Scale Assy (H-type) 105
10.3 Body Assy (B,P,R-type) 106
10.4 Body Assy (H-type) 107
10.5 Platform (B,P,R-type) 108
10.6 Main Frame (H-type) 109
10.7 I.O Cover (H-Type) 110
10.8 Upper Case 111
10.9 Pole Display (R-type) 112
10.10 Pole Display (P-type) 113
10.11 Printer Assembly 114
10.12 Print Head Assembly 115
10.13 Cartridge 116
10.14 Tray Assembly (B,P,R-type) 117
10.15 Tray Assembly (H-type) 118
10.16 LAN card 119
11. Part List 120
11.1 Electronic 120
11.2 Mechnical 120
12. Revision 121

1. Proper Operation

1.1 Introduction

Thank you for purchasing the CAS CL5000 Scale Printer. The CL5000 Scale Printer has been designed with many advanced features. With the high quality construction and the user-friendly menu driven programming we are confident that the CAS CL5000 Scale Printer will meet all of your most demanding requirements.

The CL5000 utilizes a high speed thermal printer capable of print speeds up to 4 inches per second. It can print on both label and ticket materials. The label cartridge provides an easy method of replacing or installing labels. The CL5000 is capable of printing a variety of custom logos, nutritional information panels, ingredient messages and other in store advertising messages. Using the included software almost any custom label design is possible.

Other features of the CL5000 include several selectable operation modes that enable you to control access to vital scale functions. Sales reports are available through the scale's on-screen menus or through the software. Up to 144 quick look up or speed keys are available on the pole models and 106 on the bench model. The CL5000 has a "double click call" function that enables you to quickly recall speed keys without having to use a shift key.

The CL5000 can be configured in an in-store network with up to 32 scales using either wired or wireless standard Ethernet protocols. Using this network configuration allows you to save time by managing and controlling scale programming and sales reporting from one central location. The scale's operational speed in the network is the same as a stand alone machine because PLU and other data files are stored locally in each scale's memory.

The CL Works software package is included with each scale. This software will operate on most PC's using Windows 98/2000/XP operating systems. Using the CL Works program enables you to have complete control over the CL5000 resulting in more accurate price control and programmed information. It also provides an excellent method of storing all scale data files as an emergency backup function. The CL Works software also includes a label design program that allows you to create, modify and store custom label formats and keyboard layouts.

For proper operation and maintenance of your CL5000 please be sure to read the entire manual before use. A wide variety of supplies and accessories are available through your Authorized CAS Dealer.

1.2 Model and Specification

Model	CL5000 Series			
Capacity	15Kg	30Kg	30 lb	60 lb
Interval	2g/5g	5g/10g	0.005lb/0.01lb	0.01b/0.02lb
Max Tare	-5.998Kg	-9.995Kg	-9.995lb	-29.99lb
Display	24 digit VFD + Graphic LCD			
	Tare: 4 digit Weight: 5 digit Unit Price: 6 digit Total Price : 6 digit		Weight: 5 digit Unit Price: 6 digit Total Price : 7 digit	
Zero Pass Range	1~50% (default 10%)			
Re-Zero Range	1~50% (default 2%)			
Overload Range	Maximum Capacity to Maximum Capacity + 255d (default is set to Maximum Capacity +9d)			
A/D Conversion Rate	Approx. 8/sec			
Measurement type	Load cell			
Platter type	SUS			
Key	B-Type	PLU Key : 48, Function Key: 36	P-Type	PLU Key : 72, Function Key: 36
Speed Key		PLU Key : 96 (48 x 2)	R-Type	PLU Key : 144 (72 x 2)

Data Table	Input Range	Max
Default PLU	1~999999	3000
Default Ingredient (510 Characters)	1~999	999
User Defined Barcode Formats	1~99	99
Department	1~99	99
Tax Type	1~9	9
Group	1~99	99
Clerk	1~99	99
Discount	1~999999	99
Origin	1~499	499
Traceability	1~999	99
Slaughter House	1~999	99
Cutting Hall	1~999	99
Traceability Country	1~999	999
Label Format	Default :45, User:20	
Bitmap	14	14
Customer	1~99	99
Quantity Symbol	1~8	8
Scroll Message	1~9	9
Pay Type	0~8	8
Sales Message	1~99	99
Nutrifact	1~500	500
Tare Table	1~99	99
Currency	1~4	4

Printer Type	Direct Thermal Print		
Printer Resolution	202 dpi		
Label Size	Width: 40mm ~ 60mm, Length: 30mm ~ 120mm		
Font	Offers various sizes of label format, e.g Small, Middle, Large Size, and on the label format, also offers various types of fonts, such as Italic, Bold, Underline, Through Line, Double Through line, Reverse, Shadow, Outline, etc.		
Report	X1/X2, Z1/Z2, Scale, PLU, Misc. PLU, Group, Department, Hourly, Clerk Report		
Barcode Type	EAN13, EAN13A5, EAN8, I2OF5, UPCA, UPC13, CODE39, CODE93, CODE128, CODABAR,		
Dimensions	B-Type	408 x 432 x 173 mm	Tray : 380 x 244 mm
	P-Type	408 x 493 x 542 mm	
	R-Type	408 x 493 x 607 mm	

1.3 Environmental Conditions & Safety

1) Please avoid the following hostile conditions

- Temperatures below or exceeding:
  -10° C ~ 40° C (14° F ~ 104° F)
- Excessive vibration
- Wind or fans functioning in direct contact with weighing platform.
- Direct sunlight
- High humidity
- Ungrounded electrical outlet
- Unstable or flimsy surface
- Shared electrical outlet
- Dust or dirt
- Poor ventilation

2) Environmental Protection

The scale should be installed in a dry and liquid free environment. When the scale is installed in a high humidity or wet-type environment, be sure to avoid spilling or spraying directly on any surface of the scale.

3) Personal Safety

It is very important to be aware of personal safety whenever maintaining or operating this equipment. We have tried to place warning labels and other indicators at the actual location on the equipment where the danger is most likely to occur. Warnings and cautions that are necessary for the safe operation of the scale are contained in this manual. Please, make sure to read carefully ALL warnings and cautions before operating the scale.

4) Observe the following safety precautions

- Turn OFF and unplug the scale whenever you are changing the label roll or whenever working in the printer bay.
- The outlet that the scale is plugged into should be properly grounded.
- Whenever connecting or disconnecting ANY cables from the scale, be sure to hold the cables by the end connector. Failure to do so may cause a short circuit.
- Maintain a static-free work area.
- The outlet used must have the proper voltage ratings.

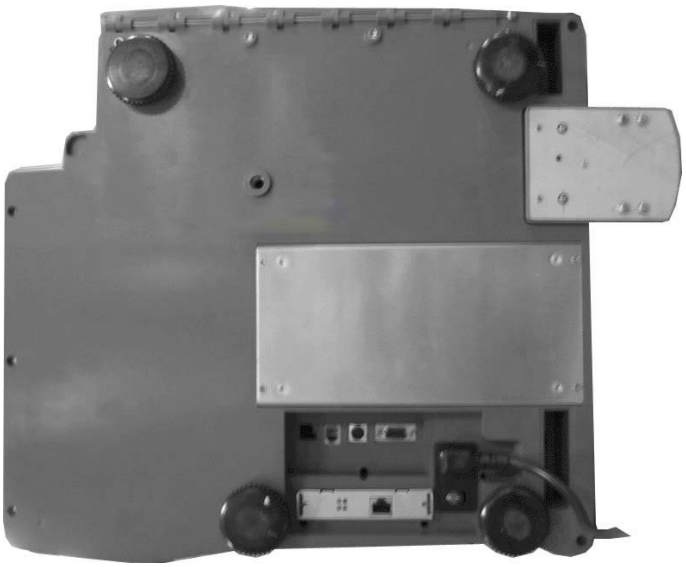
1.4 Leveling and Foot Location

1) Location

This scale must be placed on a flat and stable surface. Please keep the scale away from the direct path of oscillating fans, ventilation systems, or strong drafts as these air disturbances can be picked-up by the scale's very sensitive weighing platform and may cause incorrect weight readings.

1.1) General Foot Location

Factory setting (Refer to Figure Below)

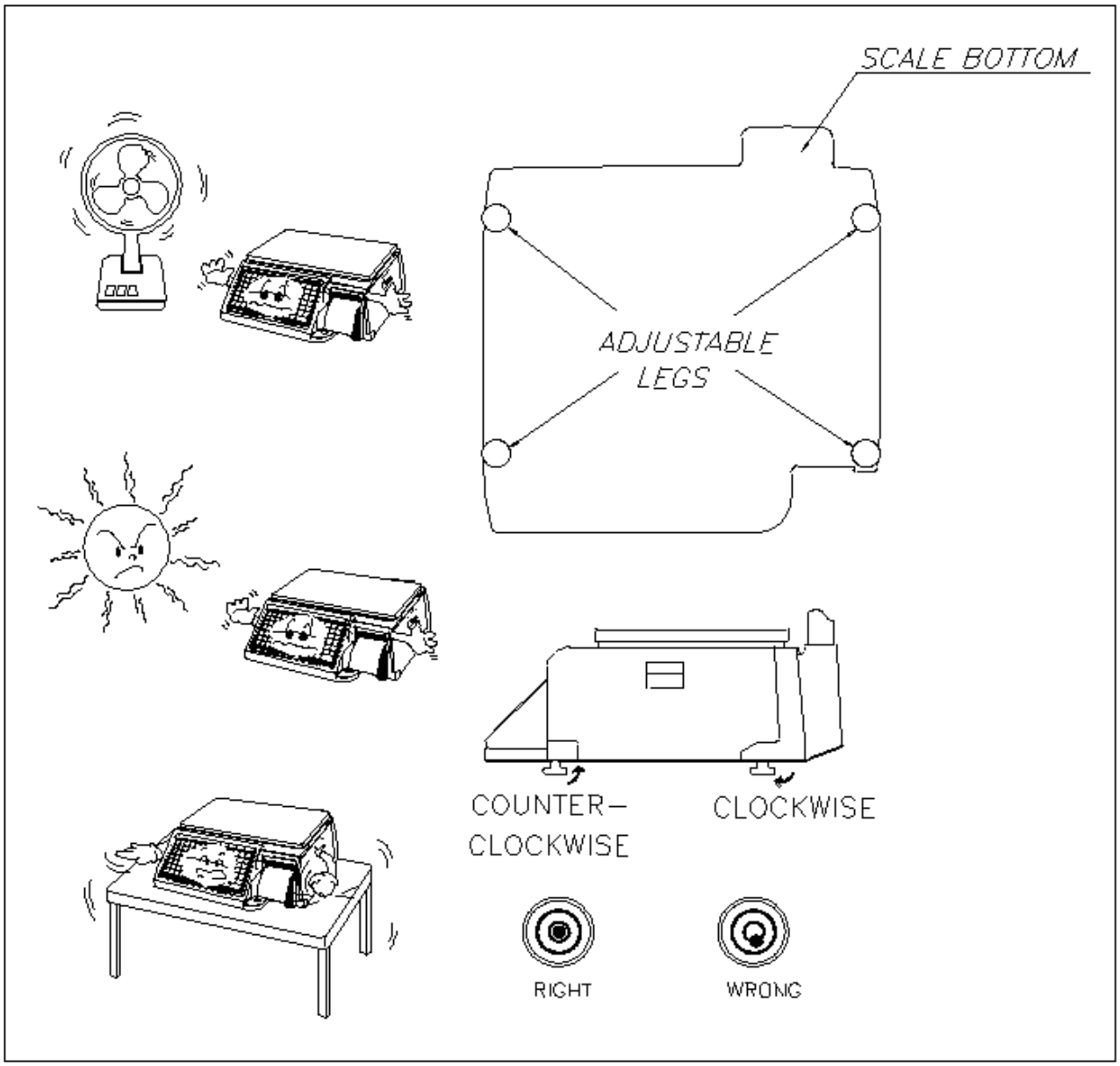


1.2) Short Case Foot Location

Unscrew the foot and place in center hole for narrow locations.

2) Leveling

If the scale is not properly leveled, please adjust the 4 adjustable legs at the bottom of the scale. Turn the legs clockwise or counterclockwise so as to center the bubble of the leveling gauge inside the indicated circle. Turning the adjustable legs counter-clockwise (viewed from top of scale) will lower that part of the scale. Turning the adjustable legs clockwise (viewed from top of scale) will raise that part of the scale. (See Fig.)

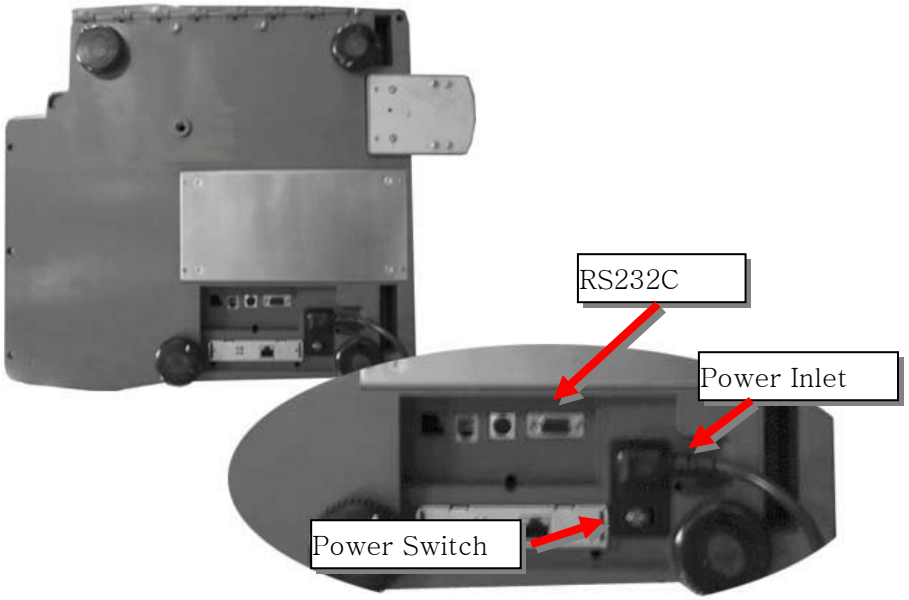


1.5 Power Requirements

Power Source: AC 100~240V, 50/60Hz, 1.5A

Power Consumption: Max 90W

The CL5000's Power inlet is located on the bottom of the scale. (Refer to Figure)



1) The CL5000 is designed to be used almost anywhere in the world! Like many appliances of today, the CL5000 is designed with an automatically switching power supply. This allows operation when connected to an AC source from 100V to 240V at 50/60Hz with a 5% tolerance.

NOTE: Please make sure that the power lines used for the CL5000 are dedicated lines with no high-noise devices such as compressors or motors on the same circuits. Also make sure that the wiring to the electrical socket is correct. If you are uncertain about the condition of your electrical wiring please contact a certified electrician.

2) Once you are sure as to the safety of the electrical line, make sure to ONLY plug the scale into a 3- pronged outlet. The third prong is a safety ground and an electrician should properly wire this if it is not correct or if you are unsure. Failure to do this CAN result in electrical shock from use of this or any electronic scale.

3) Do not use any 3-prong to 2-prong adapters or break off the third prong from the CL5000 power cord. The third prong is necessary and must be properly connected.

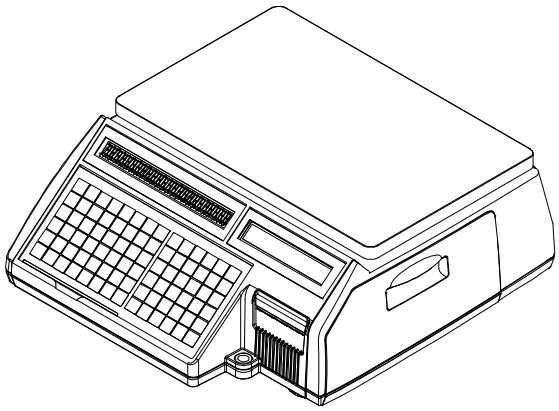
4) If you have any problems or questions regarding this matter, make sure to contact the CAS Service Department.

2. Classification

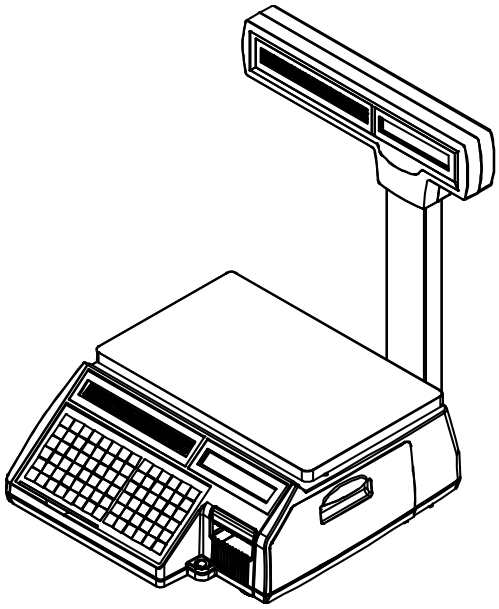
2.1 Scale Overview

There are 3 different types of CL5000, Standard Type (B), Pole Types (R,P),and Hanging Type (H).

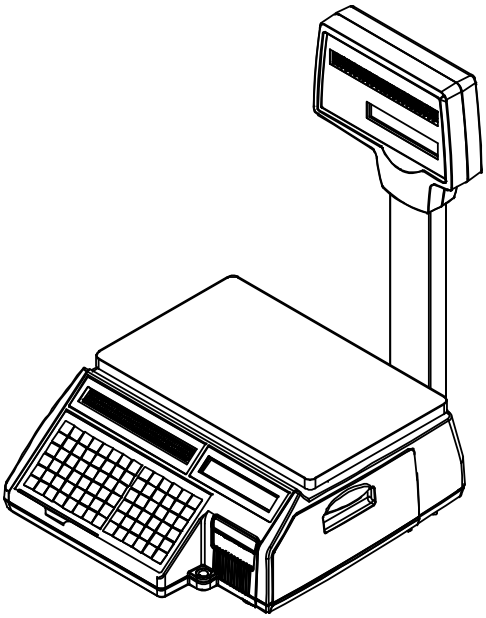
■ Standard Type



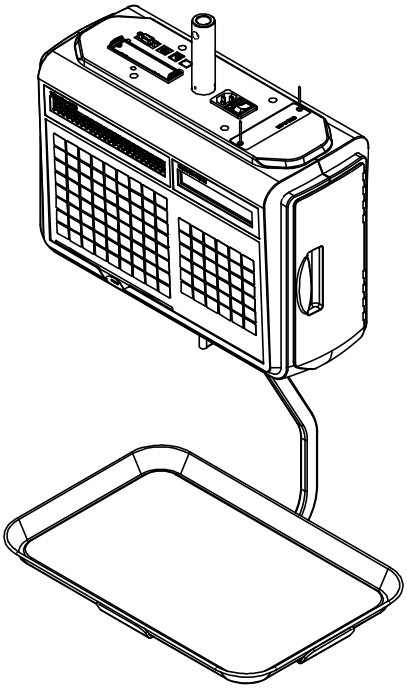
■ Pole Type P



■ Pole Type R



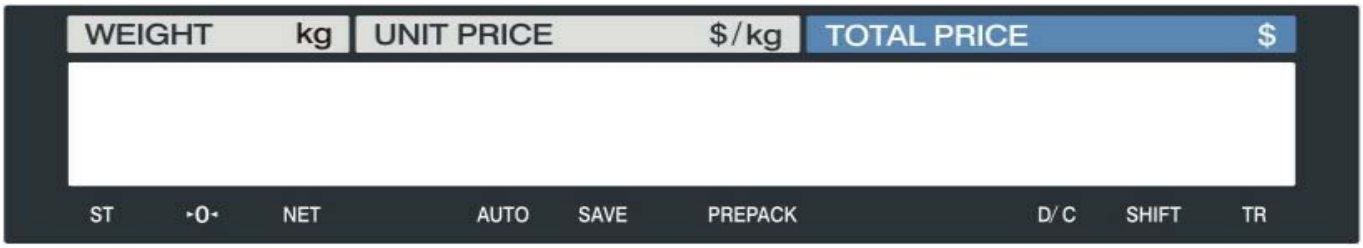
■ Hanging Type H



2.2 Display and Indicators

The CL5000 has two different types of displays. A VFD type that displays the Tare Weight, Actual Weight, Unit Price and Total Price along with other scale information such as Stable, Auto mode, Save mode, PrePack mode, Discount (D/C), Shift and Data Transfer status with a tri-mark above each item. The other type of display that the CL5000 utilizes is a Graphic LCD (202 x 64 dot) display. The Graphic LCD is used to display Programming Menus, Scrolling Messages and other advertising promotions.

■ **Type-I: 5/8/9**



■ **Type-II : 4/5/6/6**

■ **Indicators**

SYMBOLS	DESCRIPTION
ST (▼)	Stable weight indicator
▶0◀	Zero weight indicator
NET (▼)	Net weight indicator
kg	Kilogram weighing indicator
lb	Pounds weighing indicator
AUTO	Print Mode indicator
SAVE	Auto clearing status indicator
$/kg	Unit Price per kilogram
$/lb	Unit Price per pound
PREPACK	Auto clearing status indicator
DC (▼)	Discount status indicator
SHIFT (▼)	Speed key shift status indicator
TR	Data transmission status indicator

2.3 Printer

- Cartridge type print mechanism
- High quality ROHM print head
- Improved label drive utilizes 2 independent motors
- Large compartment for 100mm label roll
- Print speeds up 100 mm/sec.
- Print Quality adjustments
- Supports Die Cut Labels, Continuous Strip Labels and Thermal Receipt Paper

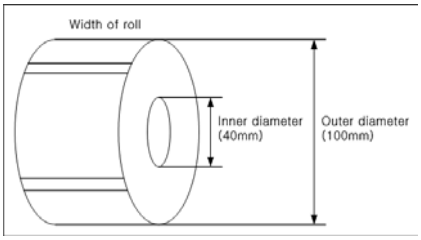
■ Label Specifications

Outer Diameter of Roll : 100mm

Inner Diameter of Roll : 40mm

Width of Receipt Roll : 40, 50, 60mm

Width of Label Roll : 60mm(Max)

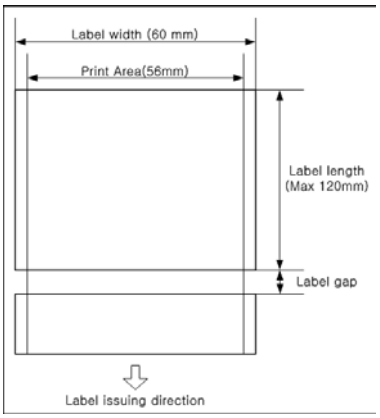


■ Print Area

Print Area : 56mm(Max)

Width of Label : 60mm(Max)

Length of Label : 120mm(Max)



2.4 Communication

■ Standard

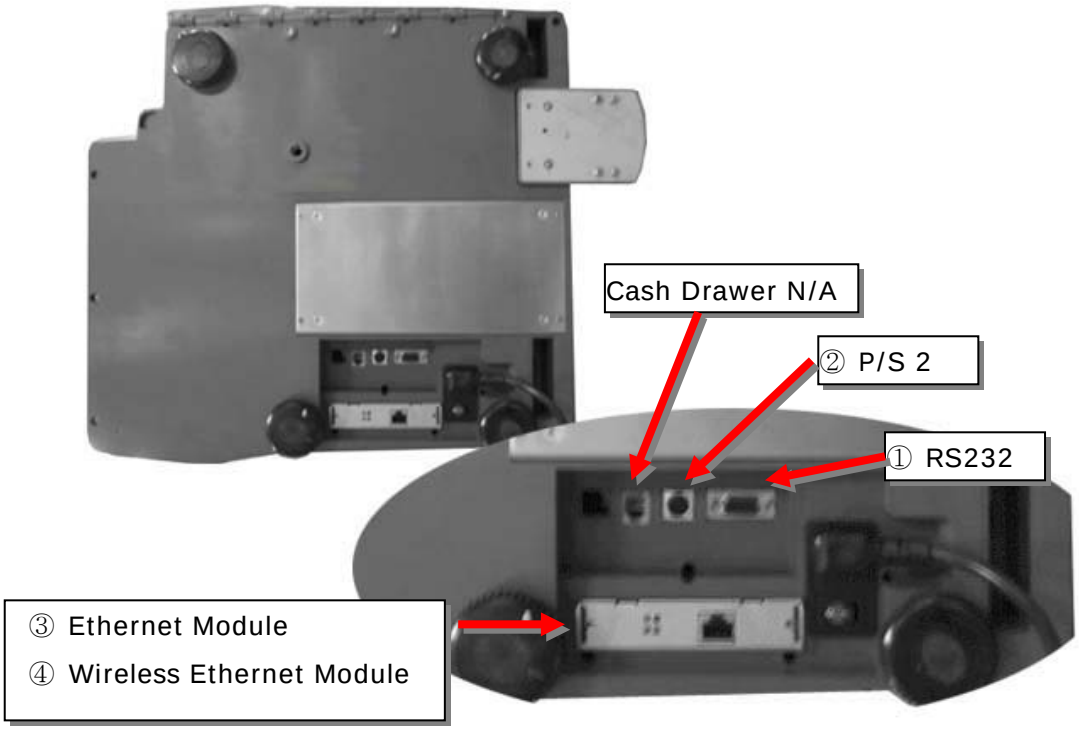
① RS232C

② P/S 2

■ Options

③ Ethernet cartridge

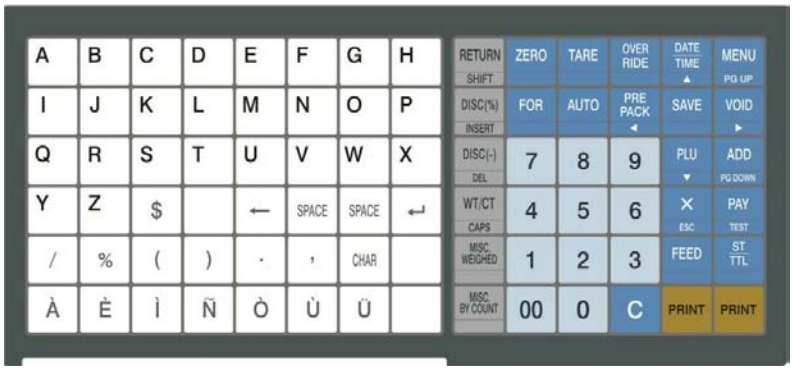
④ Wireless Ethernet cartridge



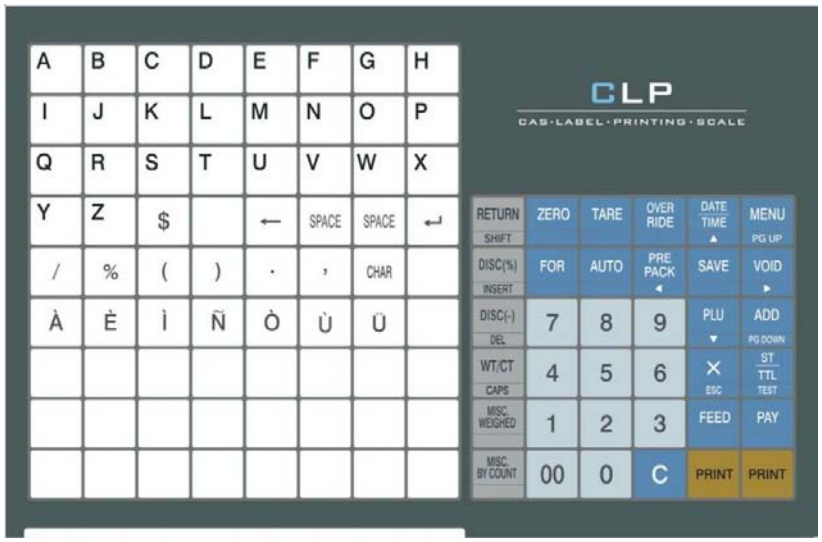
2.5 Key Pad

Note: Key Pads may vary by country

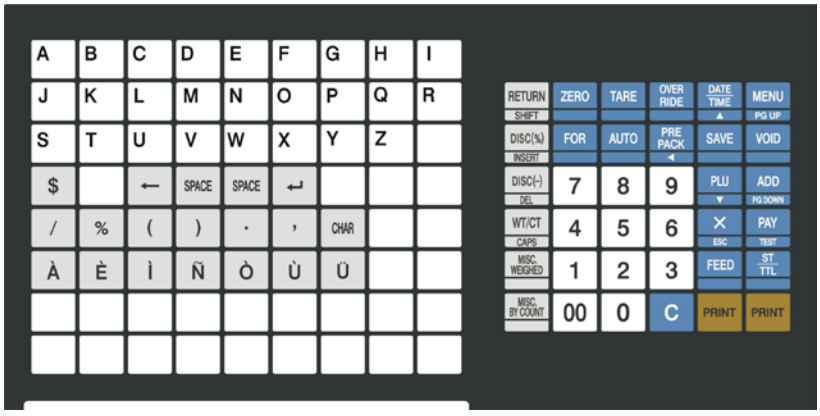
■ Standard Type Keypad



■ Pole Type Keypad



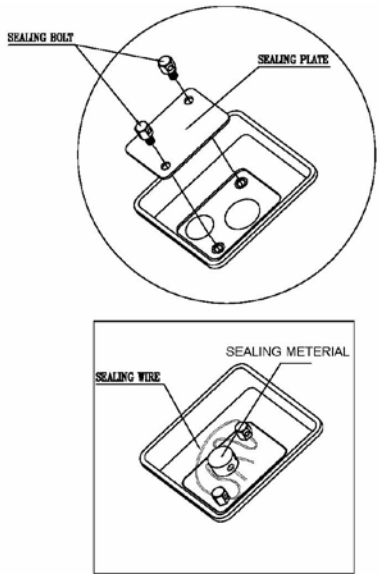
■ Hanging Type Keypad



*** Function Keys and User Defined keys are available using Menu Code 1880**

3. Getting Started

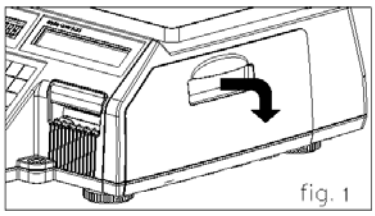
3.1 Sealing Method



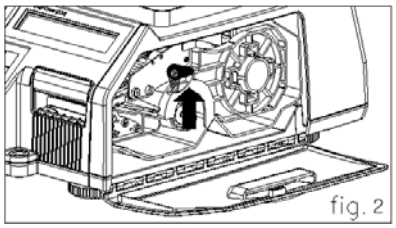
3.2 Installation of the Label Roll

To install the label roll follow the directions in this section:

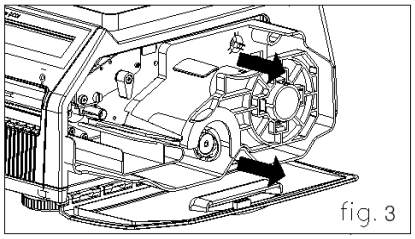
1) Press the ON/OFF key and make sure that the display is completely off. Open the printer's side-access panel. (See fig.1)



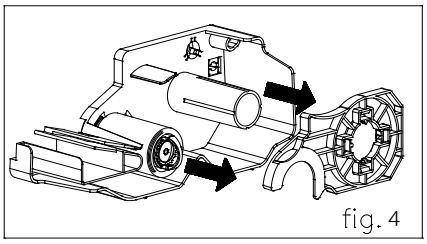
2) Release the Print Head (fig 2)



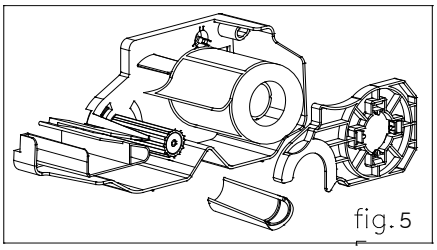
3) Remove Label Cartridge (fig. 3)



4) Remove Rewind Paper Lock and Roll Cover from the Cartridge (fig. 4)



5) Place the label roll in the cartridge (fig. 5)



6) Route labels through the cartridge and secure them on the label take up spool (fig 6)
7) Place label cartridge back into scale (fig 7)
8) Press the FEED key.

NOTE: For auto label calibration press FEED key two or three times

* If label position is not correct, check the following:

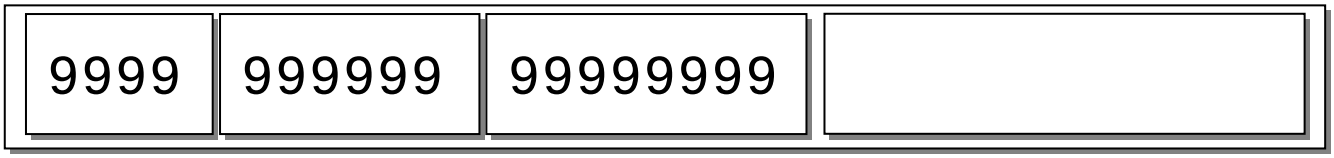
a. Label size (Label Setting Menu Code 1732)

b. Feed Adjustment (Adjust Feed Length Menu Code 1736)

c. Sensor Calibration (Sensor Calibration Menu Code 1733)

3.3. Turning Power On/Off

When the scale is turned on the display will show a count down (9~0) for self testing.



The following is a list of the self test functions that are performed during the countdown.

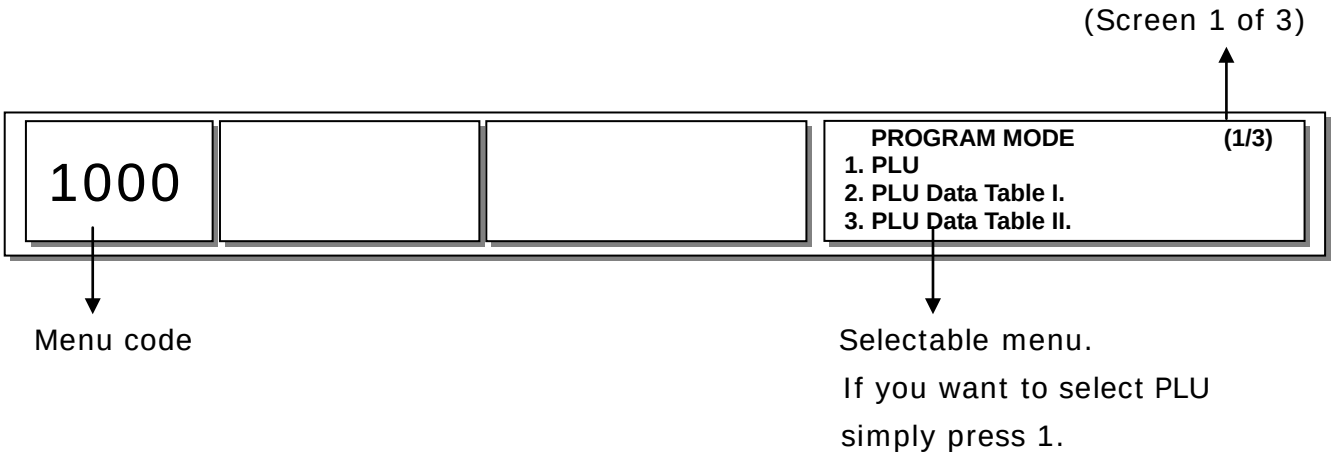
Buzzer On	Initial Port,Timer,UART(AD),CPLD,PrinterDriver,RTC
Printer Driver Start	
Start Timer	
Buzzer Off	Flash Check,Set UART (AD) Baudrate
Initial LCD,Display,Key,PS2	
VFD “999999”	Init Serial, Check Caption Data
VFD “888888”	Init ADM,Check Memory Map
VFD “777777”	Check Network Parameter,
Load Global Parameter,Load Service Type	
VFD “666666”	Check Network Flag,CAL mode
VFD “555555”	-
VFD “444444”	Init Ethernet Module
VFD “333333”	Init PLU_Data
VFD “222222”	Key Error Check -> Buz,Buz : Command Queue Init
VFD “111111”	Load Label Default, CheckAdInitStatus
VFD “000000”	Check Password,Logging BOOTTIME,NETSTART

3.4 Program Menu and Tree

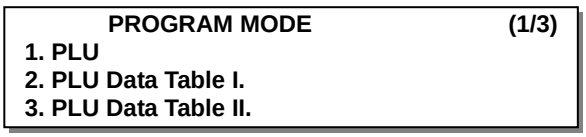
3.4.1 How to access the Program Mode

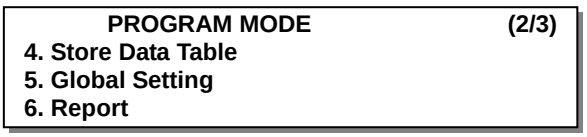
Note: You can directly access the individual programming menus by entering the Menu Code and pressing the MENU key.

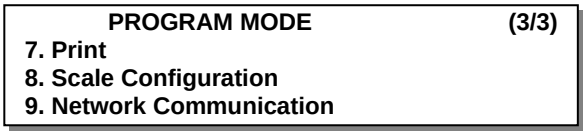
The 2 numbers at the top right (1/3) are there to help you navigate through the menu items. The number to the left of the slash is the current page or screen number and the number to the right of the slash indicates the total number of pages or screens for that menu item. You can use the PAGE UP and PAGE DOWN keys to navigate from page to page or you can use the Arrow keys to navigate 1 line at a time.



If you press "**Pg Dn**" key, you can see other menu screens as below.







3.4.2. Program Menu Tree

CODE	Menu	CODE	Sub Menu	CODE	Sub Menu		
1100	PLU	1110	Change Price				
		1120	New/Edit				
		1130	Discount	1131	New/Edit		
				1132	List		
				1133	Delete	1137	Delete by PLU(DC)
						1138	Delete by Dept(DC)
						1139	Delete All
		1140	Management	1141	Copy		
				1142	Delete	1147	Delete by PLU No.
						1148	Delete by Dept. No.
						1149	Delete All
				1143	Move		
				1144	Select PLU Items		
				1145	PLU Sale Count		
		1150	List				
		1160	Speed Key				
		1170	Sample Printing				
1200	PLU Table1	1210	Department				
		1220	Group				
		1230	Tax Rate				
		1240	Sales Message				
		1250	Origin				
		1260	Barcode				
		1270	Tare				
		1280	Unit Symbol				
1300	PLU Table2	1310	Ingredient				
		1320	Nutrition Facts				
		1330	Traceability				
		1340	Country				
		1350	Slaughter House				
		1360	Cutting Hall				
1400	Store Data Table	1410	Store				
		1420	Customer				
		1430	Scroll Message	1431	Configuration		
				1432	Edit Scroll Message		
				1433	List Scroll Message		
		1440	Currency				
1500	Global Setting	1510	Label Format				
		1520	Barcode				
		1530	Discount	1531	Priority Setting		
				1532	Weight Discount		
				1533	Count Discount		
				1534	PCS Discount		
		1540	Tax	1541	Set Global Tax		
				1542	Global Tax No.		

1600	Report	1610	X1 Report	1611	Scale
				1612	PLU
				1613	Misc. PLU
				1614	Group
				1615	Department
				1616	Hourly
				1617	Clerk
		1620	Z1 Report		
		1630	X2 Report	1631	Scale
				1632	PLU
				1633	Misc. PLU
				1634	Group
				1635	Department
				1636	Hourly
				1637	Clerk
		1640	Z2 Report		
		1650	Clear All		
1700	Printing	1710	Print inhibit		
		1720	Markdown		
		1730	H/W Setting	1731	Print Mode
				1732	Label/Ticket Size
				1733	Sensor Calibration
				1734	Motor & Sensor
				1735	Print Intensity
				1736	Adjust Feed Length
				1737	Label Preprint
		1740	Serial Number Format		
		1750	Addup Total		
		1760	Ticket	1761	Select Ticket Item
				1762	Select List Item
				1763	Select Ticket Font Size
1800	Scale Config	1810	Sale Mode		
		1820	Operation Mode		
		1830	Department		
		1840	Date/Time		
		1850	User/Security Configuration	1851	New/Edit User
				1852	Change Password
				1853	List User
				1854	Delete User
				1855	Config Permission
				1856	Clerk Key
		1860	Test	1861	Display
				1862	A/D
				1863	Keypad
				1864	Printer
				1865	Printer Sensor
				1866	Memory Information
				1867	Firmware Version
				1868	Communication
		1870	Scale Parameter	1871	Display
				1872	Printing
				1873	Sale setup
				1874	Clerk Logout
		1880	Function Key Define		

1900	Communication	1910	Network Setting	1911	Service Type
				1912	DHCP
				1913	IP
				1914	Remote IP
				1915	RS232C
				1916	WLAN Setting
				1917	WLAN Config
		1920	Application		
		1930	Scale Lock/Unlock		
		1940	Check Scale		
		1950	Backup to scale		

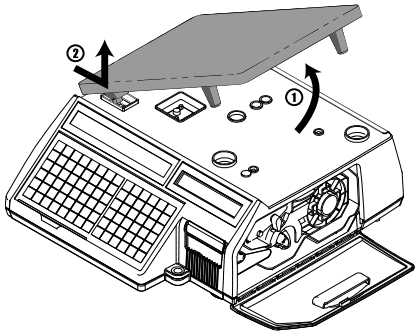
3.4.3 Calibration Menu Tree

CODE	Menu	CODE	Sub Menu	CODE	Sub Menu
8100	Calibration	8110	Span Calibration		
		8120	Span/Zero Fine Adjust		
		8130	Capacity & Units		
		8140	Gravity Constant		
		8150	Percent Calibration		
		8160	Linearity Adjust		
		8170	Zero & Tare Setting		
		8180	Factory Setting	8181	Digital Filtering
				8182	A/D Hardware Setting
				8183	A/D Initialize
				8184	Linearity Fine Adjust
				8185	Hysteresis Calibration
				8186	Creep Setting
				8187	A/D Firmware
8200	System Options	8210	Clear Memory	8211	Clear Report
				8212	Clear All PLU
				8213	Clear All Table
				8214	Flash All Clear
		8220	Scale Type		
8300	Printer Hardware	8310	Print Mode		
		8320	Label/Ticket Size		
		8330	Sensor Calibration		
		8340	Sensor & Motor		
		8350	Printer Intensity		
		8360	Adjust Feed Length		
		8370	Label Pre-print		
		8380	Printer Initialize		
8400	Network Options	8410	Enable Interface		
8500	Self Test	8510	Display Test		
		8520	A/D Test		
		8530	Keyboard Test		
		8540	Printer Test		
		8550	Printer Sensor Test		
		8560	Memory Information		
		8570	Firmware Version		
		8580	Cash Drawer Test		
		8590	Communication Test		
8600	Parameter Setting	8600	[Parameter Setting Mode]		

4. Calibration Mode

4.1 Calibration

(Calibration MENU -> 1. Calibration)



Execute Weight Calibration and A/D related settings

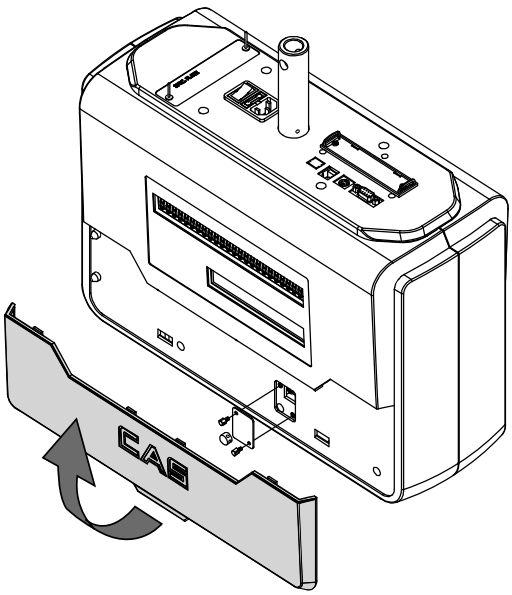
(Should be performed by an Authorized CAS Dealer Only)

Lift the platter and remove the Calibration Seal.

(CAUTION: Lift the platter from the right side first and then unlock the left side. Refer to the figure)

To access Calibration Mode:

Turn ON Main Power Switch while pressing the CAL button. (Refer to figure below)



NOTE: For Hanging type: Remove the bottom cover.

First page of Calibration mode

8000	CAL	ModE	CALIBRATION MODE (1/2) 1. CALIBRATION 2. SYSTEM OPTIONS 3. PRINTER HARDWARE

4.1.1. Span Calibration (Menu Code 8110)

(Calibration MENU –> 1. Calibration –> 1. Span Calibration)

Note: Proper Calibration of the CL5000 requires the use of government certified weights. Make sure you have the correct amount of weight for the capacity that the scale is going to use. (Ex: 30lbs of weight for a 30lb capacity scale.)

Max Capacity of the CL5000 is set in Menu 1830.

The display will prompt you for the amount of weight needed based on the scale configuration settings.

8100	CAL	ModE	CALIBRATION (1/3) 1. SPAN CALIBRATION 2. SPAN/ZERO FINE ADJUST 3. CAPACITY & UNITS

① Select “Span Calibration”

ULoad	5481	5481	ZERO CALIBRATION (1/2) - REMOVE ALL WEIGHT. - PRESS PRINT WHEN READY.

② Remove all weight from platter and press “PRINT”

Display will show “Wait4”, 3, 2 ,1 and then “Wait0” then the SPAN CALIBRATION Display.

LoAd	0	5481	SPAN CALIBRATION (2/2) - PLACE 15. LBS ON THE PLATTER. - PRESS PRINT WHEN READY.

③ Place the maximum capacity on the platter. (Menu 8130 sets the max capacity for calibration.)

LoAd	34475	39962	SPAN CALIBRATION (2/2) - PLACE 15 LBS ON THE PLATTER - PRESS PRINT WHEN READY.

④ Press “PRINT”

Display shows “Wait4”, 3, 2, 1 and then Wait0” then returns to the Main Calibration Menu.

8100	CAL	ModE	CALIBRATION (1/3) 1. SPAN CALIBRATION 2. SPAN/ZERO FINE ADJUST 3. CAPACITY & UNITS

Error Message

* If the platter is unstable during the Calibration process, the following error message will appear.

WAit0	2776	2776	**Cal Error – Unstable (0x01)** **Press Any Key**

* If the Calibration weight was too much or not enough, the following error message will appear.
  - Calibration weight limits can be re-adjusted by menu 8182 “Cal Zero(Span) Max(Min) Range”

WAit0	1027	1027	**Cal Error – Range Over (0x07)** **Press Any Key**

* If an A/D failure is detected during the Calibration process the following error message will appear. Please check the connector between the main board and the controller board.

WAit0	1027	1027	**Cal Error – Wrong ADM (0xff)** **Press Any Key**

4.1.2 Span/Zero Fine Adjust (Menu Code 8120)

(Calibration MENU –> 1. Calibration –> 2. Span/Zero Fine Adjust)

This mode is for fine tuning of Span and Zero settings after performing a SPAN Calibration if necessary.

8100	CAL	ModE	**CALIBRATION (1/3)** **1. SPAN CALIBRATION** **2. SPAN/ZERO FINE ADJUST** **3. CAPACITY & UNITS**

① Select menu “Span/Zero Fine Adjust”

8120	0	0	**SPAN/ZERO FINE ADJUST (1/1)** **ZERO:[10730]** **SPAN:[88133]**

ⓐ Menu Code ⓑ Internal Value ⓒ External Value (Weight) ⓓ Pure setting value of Zero & Span

* If ⓒ is not set to zero press “ ZERO” key. Value ⓓ will update.

② Put Max. Capacity weight on the platter

8120	60012	15005	SPAN/ZERO FINE ADJUST (1/1) ZERO:[10730] SPAN:[88133]

③ Use ◀ ▶ key for fine adjust.

* Insert setting value by using the cursor keys (for the fine adjustment)

"▶" Increases Span value "ⓓ" to decrease Internal value "ⓑ"

"◀" Decreases Span value "ⓓ" to increase External value "ⓑ"

- Internal value 60012 needs to change 60000

  Press [▶] X 12 Times to decrease internal value.

8120	60000	15000	SPAN/ZERO FINE ADJUST (1/1) ZERO:[10730] SPAN:[88145]

* Insert setting value by number key pad

- Set Span value: use curser key to highlight span value.
- Type estimate value using number key then press "TEST" key for results

  # This process may take several times to set 60000.

  During this process Max Capacity weight is needed for best result.

Ex) Input "88145" by keypad and press "TEST" key

8120	60000	15000	SPAN/ZERO FINE ADJUST (1/1) ZERO:[10730] SPAN:[88145]

4.1.3 Capacity & Units (Menu Code 8130)

(Calibration MENU –> 1. Calibration –> 3. Capacity & Units)

This mode is used to set the CL5000's Weighing Units, Capacity, Interval, and Cal Unit.

CAUTION: The Capacity & Units Setting should be made prior to performing the Span Calibration procedure. If the Capacity & Units setting is changed you must perform a Span Calibration again. Do not change setting after Span calibration.

	Option	Setting Value
1	Weighing Unit	Setting Scale Unit 0 : kg 1 : lb 2 : g
2	Capacity	Setting Scale Max Capacity 1 : 15 kg / 30 lb 2 : 30 kg / 60 lb
3	Interval	Setting Usage of Multi-interval 0 : Single Interval 1 : Dual Interval
4	Cal Unit	Setting Calibration Weighing unit 0 : kg 1 : lb * This setting uses in Span Calibration, Percent Calibration, Linearity Adjust.

8130	CAL	ModE	CAPACITY & UNITS (1/2) WEIGHING UNIT:[1] 0)KG 1)LB 2)G CAPACITY :[1] 1) 30LB INTERVAL :[0] 0)SINGLE 1)DUAL

CAPACITY & UNITS (2/2)
CAL UNIT :[0] 0)KG 1)LB

4.1.4 Gravity Constant (Menu Code 8140)

(Calibration MENU -> 1. Calibration -> 4. Gravity Constant)

CL-5000 scale allows you to calibrate for any country. You can set the gravity constant data according to the country. In case of full re-calibration set the factory gravity first and then local area gravity code.

(For span calibration Local gravity value is automatically matched with Factory gravity value)

8140	CAL	ModE	GRAVITY CONSTANT (1/1) FACTORY GRAVITY :[9.8024] LOCAL GRAVITY :[9.7814]

Use the following table to determine the proper G-Constant for your area.

Country	City	G-Constant	Country	City	G-Constant
Argentina	Buenos Aires	9.7979	Mexico	Mexico City	9.7799
Australia	Sydney	9.7979	Morocco	Rabat	9.7964
Austria	Vienna	9.8099	Netherlands	Amsterdam	9.8129
Belgium	Brussels	9.8114	New Zealand	Wellington	9.8039
Belize	Manamah	9.7904	Norway	Oslo	9.8189
Bolivia	La Paz	9.7844	Panama	Panama City	9.7814
Brazil	Brasilia	9.7889	Peru	Lima	9.7829
Canada	Montreal	9.8069	Philippines	Manila	9.7844
	Ottawa	9.8069	Poland	Swider	9.8159
	Toronto	9.8054	Portugal	Lisbon	9.8009
	Vancouver	9.8099	Rumania	Bucharest	9.8054
Check Republic	Prague	9.8114	Saudi Arabia	Riyad	9.7904
Chile	Santiago	9.7979	Scotland	Stockholm	9.8189
China	Hong Kong	9.8099	Singapore	Singapore	9.7814
Colombia	Bogota	9.7799	South Africa	Johannesburg	9.7919
Costa Rica	San Jose	9.7829	Spain	Madrid	9.8024
Cypress	Nicosia	9.7979	Switzerland	Bern	9.8084
Denmark	Copenhagen	9.8159	Taiwan	Taipei	9.7904
Ecuador	Quito	9.7724	Tunisia	Tunis	9.7799
Finland	Helsinki	9.8189	Turley	Ankara	9.8024
Germany	Dusseldorf	9.8129	Uruguay	Montevideo	9.7964
Great Britain	London	9.8144	USA	Anchorage	9.8189
Greece	Athens	9.8009		Atlanta	9.7964

Guatemala	Guatemala	9.7844		Boston	9.8039
Hungary	Budapest	9.8069		Chicago	9.8024
Indonesia	Djakarta	9.7814		Dallas	9.7949
Iraq	Baghdad	9.7964		Detroit	9.8039
Japan	Mishima	9.7979		Los Angeles	9.7979
Korea	Seoul	9.7994		New York	9.8024
Kuwait	Kuwait	9.7919		Philadelphia	9.8024
Lebanon	Beirut	9.7964		San Francisco	9.7994
Mauritius	Port Louis	9.7859	Venezuela	Caracas	9.7829

NOTE: The G-Constant is the acceleration of gravity in meters per second per second.

4.1.5 Percent Calibration (Menu Code 8150)

(Calibration MENU –> 1. Calibration –> 5. Percent Calibration)

When you don't have the maximum weights for calibration, the Percent Calibration allows you to set the amount of weight you will use to calibrate the scale.

8100	CAL	ModE	CALIBRATION (2/3) 4. GRAVITY CONSTANT 5. PERCENT CALIBRATION 6. LINEARITY ADJUST

① Select Percent Calibration.

8150	CAL	ModE	PERCENT CALIBRATION (1/1) USE WEIGHT : [15] LB FULL CAPA WEIGHT: 30.00 LB

② For 15lb weight, input "15" and press "print"

ULoAd	5481	5481	ZERO CALIBRATION(1/2) - REMOVE ALL WEIGHT. - PRESS PRINT WHEN READY.

③ Remove all weight from the platter and press "PRINT", then "Wait4~Wait0" will display.

LoAd	0	10731	SPAN CALIBRATION (2/2) - PLACE 15 lb ON THE PLATTER. - PRESS PRINT WHEN READY.

④ Put 15lb on the platter then press "PRINT" after "Wait4~Wait0" scale will return to CAL Menu.

4.1.6 Linearity Adjust (Menu Code 8160)

(Calibration MENU –> 1. Calibration –> 6. Linearity Adjust)

You can fine adjust the mid-range weight reading for a more precise calibration.

8100	CAL	ModE	CALIBRATION (2/3) 4. GRAVITY CONSTANT 5. PERCENT CALIBRATION 6. LINEARITY ADJUST

① Select Linearity Adjust.

8160	CAL	ModE	LINEARITY ADJUST (1/1) USE WEIGHT :[15] lb FULL CAPA WEIGHT : 30.00 lb

② For 15lb weight, input “15”key and press “print”

ULoAd	5501	5501	ZERO CALIBRATION (1/3) - REMOVE ALL WEIGHT. - PRESS PRINT WHEN READY.

③ Remove all weight from the platter and press “PRINT”, after “Wait4~Wait0” display shows

Mid	0	5501	MID CALIBRATION (2/3) - PLACE 15 LB ON THE PLATTER. - PRESS PRINT WHEN READY.

④ Place 15lbs on platter and press “PRINT” after “Wait4~Wait0” display will show

LoAd	17243	22745	SPAN CALIBRATION (3/3) - PLACE 30.00 LB ON THE PLATTER. - PRESS PRINT WHEN READY.

⑤ Put 30lbs on the platter and then press “PRINT” after “Wait4~Wait0” display will show

8100	CAL	ModE	CALIBRATION (2/3) 4. GRAVITY CONSTANT 5. PERCENT CALIBRATION 6. LINEARITY ADJUST

4.1.7 Zero & Tare Setting (Menu Code 8170)

(Calibration MENU -> 1. Calibration -> 7. Zero & Tare Setting)

CAUTION: This Setting is part of (OIML, NTEP, etc) regulation must be setting by the local restriction.

You can set the ZERO, TARE at acceptable range and maximum display range.

8170	CAL	ModE

```
ZERO & TARE SETTING          (1/3)
INIT-ZERO RANGE(%):     [ 10]
REZERO RANGE(%) :       [  2]
OVERLOAD RANGE(D):      [  9]
```

```
ZERO & TARE SETTING          (2/3)
ACCUMULATION TARE(Y/N) : [ N ]
SUBTRACTION TARE(Y/N) :  [ N ]
GROSS ZERO MARK(Y/N):    [ Y ]
```

```
ZERO & TARE SETTING          (3/3)
NET ZERO MARK(Y/N)   :  [ N ]
GROSS ZERO-TRACKING(Y/N) : [ Y ]
NET ZERO TRACKING(Y/N) : [ N ]
```

Init-Zero range

Before entering the Sales Mode the Calibrated A/D value and current A/D value are compared. These values need to be in an acceptable range for the CL5000 to function properly. The CL5000 will not operate correctly if there is any weight on the platter.

Re-zero Range (%)

During normal usage, zero range might become unstable. This could be caused by the platter or other environmental conditions. You can set the allowed percent (%) range for zero display. (OIML regulation restricts 2% of maximum weight range can be used)

Overload Range (d)

You can set the maximum overload range. For example, [9] set as 30.09 lbs (.01x[9]=.09lbs). If the weight is over 30.09 lbs the overload message will appear.

Accumulation (Y/N)

Tare weights can be accumulated. This is useful when adding packages of different types.

Subtraction(Y/N)

Allows you to set a different Tare value but only if the new tare value is less than the first value.

Gross Zero Mark(Y/N)

The real weight value is 0(Gross Weight=0) display will indicate "▼" on the gross weight

NOTE: * Gross weight will display as total weight. (Tare setting does not effect)

* Net weight is remain value of Tare weight.

* If Tare setting is set as "N" the gross weight and net weight value is same.

Net Zero Mark(Y/N)

When Tare weight is set to zero, Zero mark will display. In other words Net Weight is zero.

Gross Zero-Tracking(Y/N)

You can set Zero-tracking while Gross Zero is 0. Factory setting is "Y".

Net Zero-Tracking(Y/N)

You can set Zero-tracking while Net zero is 0. Factory setting is "N".

4.2 Factory Setting (Menu Code 8180)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting)

This setting A/D's advanced setting only for factory primary setting.

4.2.3 A/D Initialize (Menu Code 8183)

(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 3. A/D Initialize)

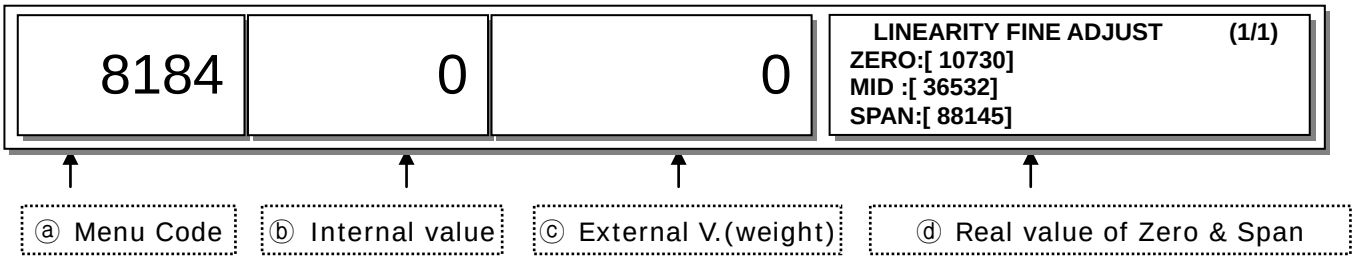
8183	CAL	ModE	A/D INITIALIZE (1/1) Are You Sure?(Y/N) :[N]

CAUTION: Must record setting values before Selecting [Y]. This will set the scale first default setting

4.2.4 Linearity Fine Adjust (Menu Code 8184)

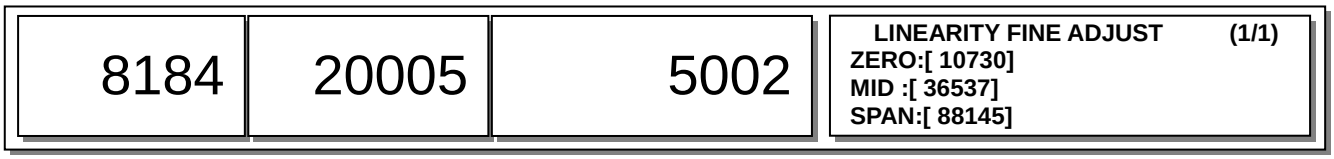
(Calibration MENU -> 1. Calibration -> 8. Factory Setting -> 4. Linearity Fine Adjust)

① Selecting“LinearityFineAdjust”



NOTE: You can set 0 by pushing “ZERO” This will update new Zero value.

② Using the weight value entered in MENU 8160, place 15lbs (MAX=30lbs) on the platter.



③ Using cursor key for fine adjust.

* How to use cursor key

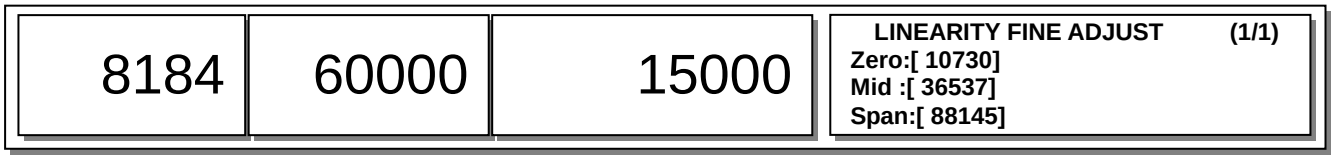
“▶” Increase Span value(ⓓ) to reduce internal (ⓑ)value

“◀“ Decrease Span value(ⓓ) to increase internal (ⓑ)value

- Setting Mid value press “▼”key
- Internal value 20005 to change 20000 press “▶” 5times.

* How to input setting value

- Use cursor key to change mid value.
- Insert “36537” then press “TEST”



④ Also change Span value with cursor key.

⑤ Press “SAVE” to save and exit.

4.3 Memory Clear

(Calibration MENU –> 2. System Options –> 1. Clear Memory)

The CL5000's memory can be cleared individually, item by item, or it can be cleared all at once based on the following options.

8000	CAL	ModE

CALIBRATION MODE (1/2)
1. CALIBRATION
2. SYSTEM OPTIONS
3. PRINTER HARDWARE

① Select System Options

8200	CAL	ModE

SYSTEM OPTIONS (1/1)
1. CLEAR MEMORY
2. SCALE TYPE

② Select Clear Memory

8210	CAL	ModE

CLEAR MEMORY (1/2)
1. CLEAR REPORT
2. CLEAR ALL PLU
3. CLEAR ALL TABLE

CLEAR MEMORY (2/2)
4. CLEAR REPORT, PLU, TABLE

4.3.1 Clear Report (Menu Code 8211)

(Calibration MENU –> 2. System Options –> 1. Clear Memory –> 1. Clear Report)

The Clear Report Menu item will clear only the Sales Data stored in the scale.

4.3.2 Clear All PLU (Menu Code 8212)

(Calibration MENU –> 2. System Options –> 1. Clear Memory –> 2. Clear All PLU)

The Clear All PLU Menu item will clear ALL PLU Data and ALL Discount Data.

4.3.3 Clear All Table (Menu Code 8213)

(Calibration MENU –> 2. System Options –> 1. Clear Memory –> 3. Clear All Table)

The Clear All Table Menu item will clear ALL Table Data except for the PLU and Discount. This includes Department names, Sales Messages, Ingredients, Nutrifacts, etc.

4.3.4 Clear Report, PLU, Table (Menu Code 8214)

(Calibration MENU –> 2. System Options –> 1. Clear Memory –> 4. Clear Report, PLU, Table)

The Clear Report, PLU, Table Menu item will clear all Sales, PLU, Discount and Table Data from the scale in one step.

4.4 Scale Type

Menu Code 8220 (Calibration MENU -> 2. System Options -> 2. Scale Type)

This Menu item is used to select the proper scale model. The possible models are:

1. Standard Type (CL5000-B)
2. Pole Type (CL5000-R or CL5000-P)
3. Hanging Type (CL5000-H)
4. Self Service Type

CAUTION: Selecting the wrong scale model can affect the keyboard layout and cause improper operation of the CL5000. Please make sure to select the type that matches your CL5000.

4.5 Printer Hardware

No.	Sub-menus	Description
1	Print Mode	Select label, ticket, continuous label mode.
2	Label / Ticket Size	Label Mode: **"Width(60)"**, **"Height(40)"** and **"Gap length(2)"** Ticket mode: **"Width(60)"**, **"Feed(20)"** and **"End Margin(30)"** Continous Label: **"Width(60)"**, **"Feed(40)"** and **"End Margin(30)"** * ( ) are default value.
3	Sensor Calibration	Enter the "**Gap(128)"** and **"Peel(128)"** values for printing sensor calibration. * The values in ( ) are default. * If you press "TEST" key, Gap and Peel values are adjusted automatically. * In case of Ticket mode, Gap value is not saved.
4	Sensor & Motor	Setting Peel-off sensor, Rewind Motor, Label Paper type.
5	Print Intensity	Sets the Print Intensity or Print darkness..
6	Adjust Feed Length	Set adjusting values of feed length. This value can be from -200 to +200. You can change sign(+,-) by pressing ZERO key. * Pressing "TEST" key automatically feeds to adjust the feed length.
7	Label Pre-print	You can set preprint length.
8	Printer Initialize	You can reset printer.

4.5.1 Print Mode (Menu Code 8310)

(Calibration MENU –> 3. Printer Hardware –> 1. Print Mode)

Press “1” to get into “PRINT MODE.”

You can select “0” for Label mode, “1” for Ticket mode or “2” for Continuous Label mode.

Press “PRINT” to save current selection.

4.5.2 Label/Ticket Size (Menu Code 8320)

(Calibration MENU –> 3. Printer Hardware –> 2. Label/Ticket Size)

You can input “Width,” “Height,” “Gap Length” of label manually.

“TEST” key will automatically measures current label.

* Case of ticket mode “TICKET SIZE” will display and “TEST” key will not function.

4.5.3 Sensor Calibration (Menu Code 8330)

(Calibration MENU –> 3. Printer Hardware –> 3. Sensor Calibration)

You can input “Gap,” “Peel,” “Out of Paper” manually.

“TEST” key will automatically feed the label several times to calculate the measurement.

* For Ticket mode, display will be same except “Gap” value. (This value will not save)

4.5.4 Sensor & Motor (Menu Code 8340)

(Calibration MENU –> 3. Printer Hardware –> 4. Sensor&Motor)

In this menu you can enable or disable the PEEL OFF Sensor, GAP Sensor or Label Take Up/Rewind Motor.

Press “4” to get into “SENSOR&MOTOR”.

You can select [Y], [N] for “ACTIVE PEEL-OFF,” “ACTIVE REWIND MOTER,” AND “LABEL PAPER.”

* For Ticket mode display will be same. Only “ACTIVE PEEL-OFF” can be set.

* For Ticket mode Rewind-Motor and Label paper setting will not display.

4.5.5 Print Intensity (Menu Code 8350)

(Calibration MENU –> 3. Printer Hardware –> 1. Clear Memory)

The Print Intensity Menu allows you to adjust the darkness of the print. The adjustment value is from “0” to “20” with “0” being the lightest and 20 being the darkest.

Press “TEST” to issue a test label or ticket.

4.5.6 Adjust Feed Length (Menu Code 8360)

(Calibration MENU -> 3. Printer Hardware -> 6. Adjust Feed Length)

User may enter any value of the feed alignment from “-200” to “+200”.

Press “ZERO” to toggle sign.

Press “TEST” to test feed or “ENTER” to save current “FEED Length value.

* 1pixel = 0.125mm , 8pixel = 1mm Ex) Value “+80” will feed 10mm more

Value “-40” will feed 5mm less

4.5.7 Label Pre-print (Menu Code 8370)

(Calibration MENU -> 3. Printer Hardware -> 3. Label Pre-print)

User may enter “Y(Yes)” or “N(No)” to select Preprint mode and any value of the preprint length from “0”mm to “10”mm.

Press “TEST” to test preprinting.

4.5.8 Printer Initialize (Menu Code 8380)

(Calibration MENU -> 3. Printer Hardware -> 8. Printer Initialize)

Initialize printer setting.

4.6 Network Options

4.6.1 Enable Interface (Menu Code 8410)

(Calibration MENU -> 4. Network Options -> 1. Enable Interface)

You can set usage of I/O interface.

8410	CAL	ModE	ENABLE INTERFACE (1/1) Ethernet(TCP/IP) :[Y]

4.7 Self Test

4.7.1 Display Test (Menu Code 8510)

(Calibration MENU -> 5. Self Test -> 1. Display Test)

Selecting 1 will start Display test, press any key to stop and exit.

4.7.2 A/D Test (Menu Code 8520)

(Calibration MENU -> 5. Self Test -> 2. A/D Test)

8520	0	8333	A/D TEST (1/1) Normalized AD(AD1) – C1 value

You can select A/D level “0”~“5” to test.

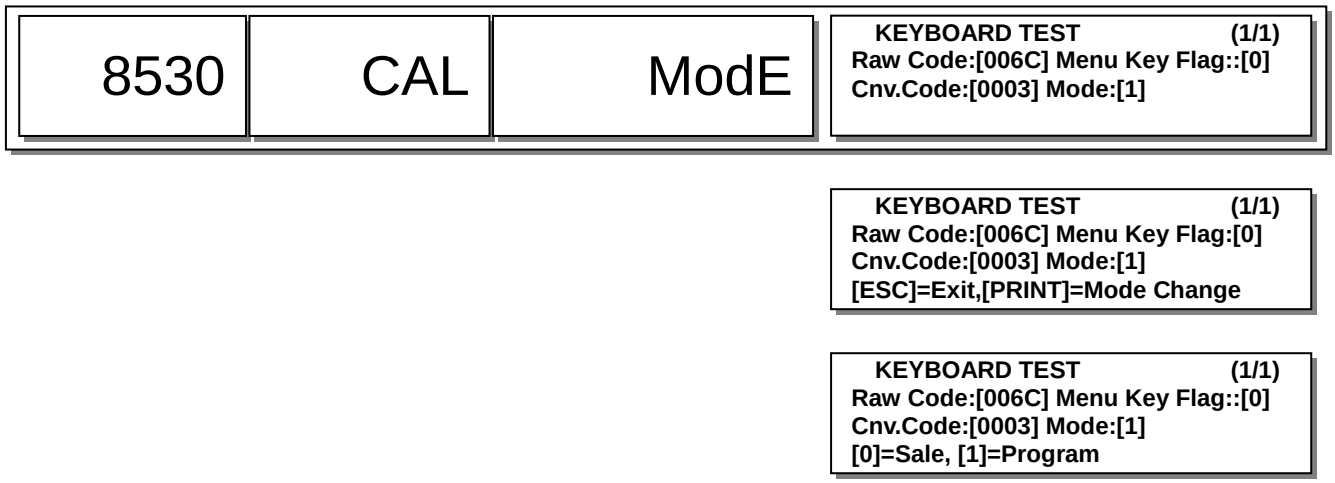
NOTE: You can set ZERO temporarily within each level. Exiting the menu will not keep zero value.

Key No.	Name	Description
0	Weight – External value	kg or lb (◀ : kg, ▶ : lb)
1	Normalized(Zeroing) A/D	Internal count (60,000). Calibration Zero - A/D
2	Normalized A/D	Internal count (60,000)
3	Unit Factorized A/D	Unit Factor applied A/D value
4	Linearized A/D	Linear incising A/D value
5	Filtered Raw A/D	Filtered Raw A/D

4.7.3 Keyboard Test (Menu Code 8530)

(Calibration MENU -> 5. Self Test -> 3. Keyboard Test)

You can test keyboard by pressing.



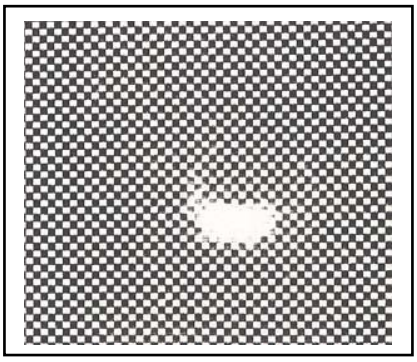
Press any keys to test Row Code and Conversion Code.

* Raw Code is location of key. (Upper left corner is 1. For Bench Type starts with 22)
* Conversion Code is function Code which has different code other then Raw Code.
* Menu Key Flag will set as 1 when “MENU” and other key is pushed same time.
* Press ESC will exit the test or change key mode.
    - ESC + ESC : End of test
    - ESC + PRINT key to change Mode
        Mode 0 : Sale Mode
        Mode 1 : program Mode

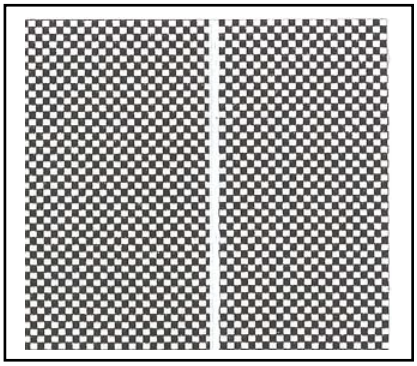
4.7.4 Chess Print (Menu Code 8540)

(Calibration MENU -> 5. Self Test -> 4. Chess Print)

Self Test Menu screen, press the 4 key for Printer Test. The scale will then print a TPH (Thermal Print Head) test label. This label print checker pattern helps to find problems with the TPH. You should clean the TPH before you try this procedure. Follow the maintenance procedure for cleaning the TPH. The following examples show some of the problems that can occur.



1



2

There are several things that this printout sample can reveal:

1. The platen roller may be dirty, have something stuck to it or be physically damaged.
2. This is a clear indication that the Thermal Head has been damaged or has failed. The Thermal Head should only be replaced by an Authorized CAS Dealer.

If you need to replace the TPH, please contact the CAS Service Department.

4.7.5 Printer Sensor Test (Menu Code 8550)

(Calibration MENU -> 5. Self Test -> 5. Printer Sensor Test)

You can test PEEL-OFF Sensor and Head Up Sensor in real time.

8550	CAL	ModE	PRINTER SENSOR TEST (1/2) Peel-off :[UNLOCK] Head-up :[CLOSE]

PRINTER SENSOR TEST (2/2)
Gap :[63]
Peel:[114]

	Test Items	Description
1	Peel-off	Checks the Peel-Off Sensor
2	Head-up	Checks Thermal Head Up Sensor
3	Gap	Displays Label Gap Sensor Value
4	Peel	Displays Peel-Off Sensor Value

4.7.6 Memory Information (Menu Code 8560)

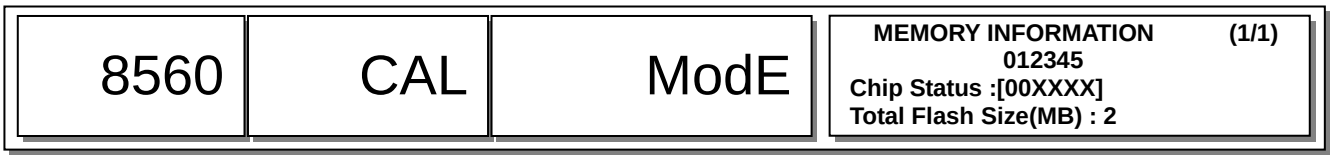
(Calibration MENU -> 5. Self Test -> 6. Memory Information)

The CL5000 Memory can be expaned up to 6MB

Memory Status is displayed by using “0” and “X”

“0” represents memory that is installed (in 1MB increments)

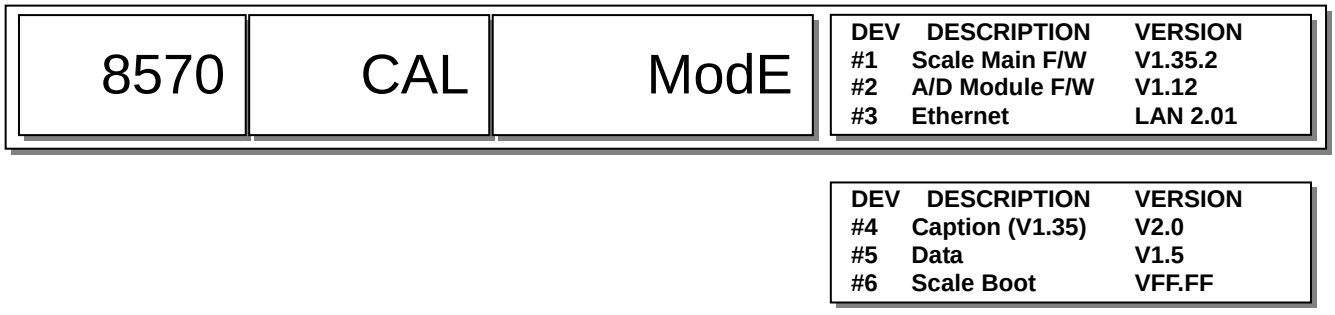
“X” represents vacant memory space.



4.7.7 Firmware Version (Menu Code 8570)

(Calibration MENU -> 5. Self Test -> 7. Firmware Version)

This menu item reads the current firmware versions in the scale. There are 2 pages of information that can be viewed by pressing the PG Up and PG Down keys.



#1 Scale Main Firmware Version

#2 A/D Module Firmware Version

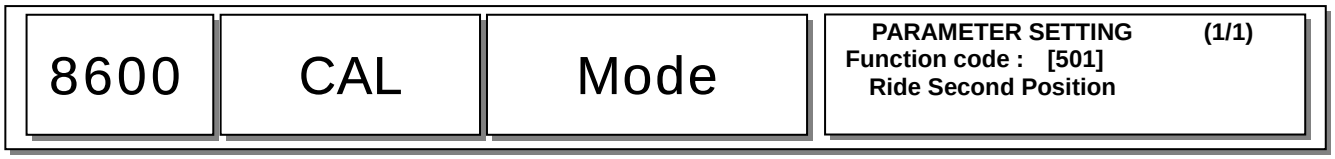
#3 Ethernet Version

#4 Caption Version

#5 Data Version

#6 Scale Boot Version

5. Parameter



The Parameter Setting Menu allows you to input Function Codes to change the CL5000's predefined settings. These settings determine how the scale operates and should only be changed if you are certain about the effect they will have on scale operations. In some cases these settings should not be changed without first checking with the local government agency.

There are two levels of Parameter Settings, Factory and Dealer. The Factory Settings are numbered 800 ~ 899 and can only be accessed through the Calibration Mode. The Dealer Settings are numbered 500 ~ 799 and can be accessed either through the Calibration Mode or by using the System Password from the normal Programming Menu.

5.1 Factory Setting (para 800~999)

1. Parameter 801 ~ 808 are UNDEFINED PARAMETERS

2. Parameter 809

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight Decimal Point	0~10	Define weight position of decimal point		2

3. Parameter 810

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Price Decimal Point	0~10	Define price position of decimal point		2

4. Parameter 811 ~ 830 are UNDEFINED PARAMETERS

5. Parameter 831

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Select Initial Screen	0~3	Select Initial start message on display	0: Chess 1: Check List 2 : Version 3: Logo	2

6. Parameter 832

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use Serial Out	Y/N	Transmit initial start by serial port.	Yes= USE No= NO USE	N

7. Parameter 833

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use last using time	Y/N	Display last usage time.	Yes = USE No = NO USE	N

8. Parameter 834

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use Clerk password	Y/N	During Initial start use Clerk password	Yes = USE No = NO USE	N

9. Parameter 835 ~ 860 are UNDEFINED PARAMETERS

10. Parameter 861

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prepack Print threshold(d)	10~ 30,000	Auto-detect weight difference in range		20

11. Parameter 862

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
MIN Weight for sale(d)	10~999	Set minimum range of sales weight		20

12. Parameter 863

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display Dummy Digit(Weight)	Y/N			N

13. Parameter 864 ~ 865 are UNDEFINED PARAMETERS

14. Parameter 866

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight Decimal Sign	CHAR	Set decimal point on weight	USE “ CHAR” to input ASCI	“ . “

15. Parameter 867 ~ 884 are UNDEFINED PARAMETERS

16. Parameter 885

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
[00] Key Format	1~4	Set " 00_" key input format *(1 means $1*10^n$)	1 = 10 2 = 100 3 = 1000 4 = 10000	2

17. Parameter 886

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
ErrorMsg Clear Timeout	0~99	Set Error message display time	Display time = Input# X 0.1 sec	30

18. Parameter 887

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Auto Call Keycode	0~999	Set Auto Call Keycode (for sale mode)	Reference Para 586 for set time	70

19. Parameter 888

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Key Clear Time(0.1s)	1~99	Set key clear time	Set Value = Input# x 0.1 Sec	30

20. Parameter 889 ~ 899 are UNDEFINED PARAMETERS

21. Parameter 900

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Ethernet (TCP/IP)	Y/N	Ethernet usage	Yes = USE No = NO USE	Y

22. Parameter 901 ~ 919 are UNDEFINED PARAMETERS

23. Parameter 920~921

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
920 -> Sign AM	CHAR	Set AM correspond name	Able to CHAR key	AM
921 -> Sign PM	CHAR	Set PM correspond name	Able to CHAR key	PM

24. Parameter 922 ~ 933

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
922 -> Month 1	CHAR	Set correspond month name	Able to CHAR key	JAN
923 -> Month 2				FEB
924 -> Month 3				MAR
925 -> Month 4				APR
926 -> Month 5				MAY
927 -> Month 6				JUN
928 -> Month 7				JUL
929 -> Month 8				AUG
930 -> Month 9				SEP
931 -> Month 10				OCT
932 -> Month 11				NOV
933 -> Month 12				DEC

25. Parameter 934 ~ 940

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
934 -> Week 1	CHAR	Set correspond DAY of Week name	Able to CHAR key	SUN
934 -> Week 2				MON
935 -> Week 3				TUE
936 -> Week 4				WED
937 -> Week 5				THU
938 -> Week 6				FRI
939 -> Week 7				SAT

26. Parameter 941 ~ 979 are UNDEFINED PARAMETERS

27. Parameter 980

MESSAGE	VALUE	CONTENT	REMARK
Use Korean for USA	Y/N	Use Korean Language	N

28. Parameter 981 ~ 994 are UNDEFINED PARAMETERS

29. Parameter 995

MESSAGE	VALUE	CONTENT	REMARK
Ingredient Size	512~1024	Set Ingredient Message Size	512

30. Parameter 996

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Allow FWUPDATE	0/1	F/W Update Condition	0 = No Check CAL 1 = Check CAL	1

31. Parameter 997

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display Style	3/4	Display Style	3 = 5/6/7 4 = 4/5/6/6	4

32. Parameter 998

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Factory Default	Y/N	Set Factory Default		N

33. Parameter 999

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Country Code	0~9	Country Setting	0 = UN 1 = KR 2 = US 3 = EU 5 = RUS 6 = ETC	2

5.2 Dealer Setting (para 500~799)

1. Parameter 501

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Ride Second Position	Y/N	If FOR key is not exist on key pad You can set initial reference (R1,R2,R3) (Count, PCS, Price)	KOREA USE	N

2. Parameter 502

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
System Password	Char	Input dealer password NOTE: Use 4byte memory (If PW is 1234 input 001234)	Does Not Work	000419

3. Parameters 503 ~ 529 are UNDEFINED

4. Parameter 530

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Date Format	Numeric	Set current date format 0 : YY/MM/DD 1 : MM/DD/YY 2 : MM/YYYY 3 : DD/MM/YY	YY : Year MM : Month DD : Day	1

5. Parameter 531

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Time Format	Numeric	Set current time format 0 : HH:MM (24hours) 1 : HH:MM AM (12hours) 2 : HH:MM:SS (24hours) 3 : HH:MM:SS AM (12hours)	HH : Hour MM : Minute SS : Second	0

6. Parameter 532

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Sell by date Format	Numeric	0: Calculate expire date with current date and input date1: Input all date information (yy/mm/dd) 1: (Input date less then 4 digit, scale will recognize as month and date (mm/dd))		0

7. Parameter 533

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use 1kg,100g Key	Y/N	Use 1kg, 100g Key. This parameter is valid only in kg mode		Y

8. Parameter 534

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Default Unit Weight (1kg,100g)	Numeric	Set default unit of PLU. All weight/price calculate according to following: 1 : 1kg 2 : 100g		1

9. Parameter 535

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display Message Time(0.1s)	Numeric	Set display time for Error, Warning message.		12

10. Parameter 536

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use kg/lb key	Y/N	Use kg/lb key		N

11. Parameter 537

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use kg/lb Auto Conversion	Y/N	Use kg/lb Auto Conversion		N

12. Parameter 538

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use 1/2lb,1/4lb Key	Y/N	Use 1/2lb, 1/4lb Key. This parameter is valid only in lb mode		Y

13. Parameter 540

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Barcode Price Cut	Numeric 0 ~ 3	Set barcode last digit (price) to be dropped	When input = 1 $12.34 -> 123	0

14. Parameter 541

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Barcode Weight Cut	Numeric 0 ~ 3	Set barcode last digit(weight) to be dropped	When input = 1 1.234kg -> 123	0

15. Parameter 542

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Barcode Item Code Cut	Y/N	Set barcode last digit (Item Code) to drop 1 digit	When input = Y 12345 -> 1234	N

16. Parameter 543

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight Barcode Print Setting	Numeric 0~3	0: Weight Barcode to Weight print 1: IF PLUtype == Count then Weight Barcode to quantity print 2 :IF Fixed sale(or (-)sale) then Weight Barcode to “ 1” print 3: USE both 1 and 2	ONLY KOREA : 3	0

17. Parameter 544

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print Weight Cut	Y/N			0

18. Parameter 545

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display Error Message bigger	Y/N			Y

19. Parameter 546

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use Frequent Shopper Program	Y/N			Y

20. Parameter 547

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Time Print Format (0~2)	Numeric (0~2)			0

21. Parameter 548

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use 2 Column for Serving Date	Y/N			N

22. Parameter 549

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display Weight Cut	Numeric			0

23. Parameter 550

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Out of paper threshold	Numeric	Set roll paper sensor sensitivity. If sensor doesn’ t recognize roll paper, setting value should be lowered		200

24. Parameter 551

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use double print (auto)	Y/N	Set " Y" to double print (scale will print same label twice but counts as one transaction) You must press print key to function		N

25. Parameter 552

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print Preset Tare Symbol	Y/N	Print Preset Tare Symbol on Label		N

26. Parameter 553

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print Net Weight Symbol	Y/N	Print Net Weight Symbol on Label		N

27. Parameter 554 is UNDEFINED PARAMETER

28. Parameter 555

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Packed Time (dep.Sell by time)	Y/N	Print packed time, according to existing sell by time		N

29. Parameter 556

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use PS2 port for Scanner	Y/N			N

30. Parameter 557

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Scanner Working Mode	Numeric (0~7)			0

31. Parameter 558

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Scanner Mapping Format	Y/N			N

32. Parameter 559 ~ 561 are UNDEFINED PARAMETERS

33. Parameter 562

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Cashdraw close time	Numeric	Set duration of cashdrawer opening and closing	1 = 0.1ms	1

34. Parameter 563

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Allow Reverse Feed:	Y/N	Use reverse feed function, when using continuous label mode		Y

35. Parameter 564 is an UNDEFINED PARAMETER

36. Parameter 565

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print Training Msg	Y/N	Print Training Message on label		Y

37. Parameter 566

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Check Connection of Master R - I	Y/N			

38. Parameter 567 ~ 568 are UNDEFINED PARAMETERS

39. Parameter 569

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
PLU Type Code	Numeric			2110

40. Parameter 570

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Non Weight sale (WT.on Tray)	Y/N	Allow transaction for pcs/PLU while weight on the tray. (the weight doesn’t affect price)		N

41. Parameter 571

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print Weight (by count sale)	Y/N	Allow to print weight while PLU is By count type (Weight value doesn’t effect on price) *Weight is only for reference		Y

42. Parameter 572

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Apply U.Price for T.D/C	Y/N	Allow to display discounted unit-price for total price		N

43. Parameter 573

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Allow Unit Price Change	Y/N	Allow changing unit price		N

44. Parameter 574

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Allow Print Zero T.Price	Y/N	Allow printing when total price is zero		N

45. Parameter 575

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Barcode 'E' to PTYPE(Korea)	Y/N	Barcode 'E' to PTYPE(Korea)		N

46. Parameter 576

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Fixed Price Hide	Y/N	Fixed Price Hide		N

47. Parameter 577

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Common Barcode	Y/N	Use Common Barcode		N

48. Parameter 578

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Common Label	Y/N	Use Common Label		N

49. Parameter 579

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use Temp Key [TYPE]	Y/N	Use Temp Key [TYPE]		N

50. Parameter 580

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print one time after call	Y/N	Allow to print one time per transaction. NOTE: In prepack mode, reset para 554 for Auto+Save		N

51. Parameter 581

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print only WT.(u.p.zero)	Y/N	Allow to print with weight value even if Unit price is 0 (Use for only product weight transaction, not on price)		N

52. Parameter 582

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use X key (by WT.)	Y/N	Allow to use X key on by weight type (For By-count and pcs X key is allowed)		N

53. Parameter 583

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Allow continuous sale	Y/N	Allow to use add-up transaction Add-up the product/ continually (after transaction scale will set zero)		N

54. Parameter 584

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use TARE Table No;	Y/N	Set input method Tare ID or direct input. If you set Y, must set tare weight before sale		N

55. Parameter 585

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use U.Price for key discount	Y/N	Set discount key for (-,%) individual item or total price		Y

56. Parameter 586

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Indirect PLU Call (0.1s)	Numeric	Set duration time for Indirect PLU call-up. NOTE: Input 0 will not call-up any PLU In this case you must press PLU button to call-up a PLU	1 = 0.1s 10 = 1sec	0

57. Parameter 587

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Override only u.p.zero PLU	Y/N	Set auto override when unit price is 0. You must input unit price to print	IF parameter 588 is set Y override value is saved	Y

58. Parameter 588

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Save Overriden u.p. zero PLU	Y/N	If para 587 set as 0, save the unit price to PLU. Next time PLU is called up PLU has saved unit price.		N

59. Parameter 589

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Apply Price Round	0~4	0: No use 1: For each PLU 2: Addup Round (ticket only) 3: Addup Round (label and ticket) 4: Cutting		0

60. Parameter 590

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Round Type	Numeric	0 : Round down, Total Price 1 : Round off, Total Price Defalut value : Set value in parameter 591		0

61. Parameter 591

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Price Round Unit	Numeric	Set round value of last digit of total price (set value: 0, 5, 10, 100, 1000 etc) This value set correspond with para 590 (Round off/down)	Set value=100 para 590 set as 1 ex 1) Total Price=12345 Set value applied Total Price=12300 ex 2) Total Price=12355 Set value applied Total Price=12400	0

62. Parameter 592

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight Round Unit	Y/N	Currently not used Weight round off/down in 10 unit Calculate and print at same time		0

63. Parameter 593

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use By Pcs PLU	Y/N	Set by pcs PLU Y for count/quantity N for simple count function		Y

64. Parameter 594

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print under Min. Weight	Y/N	Allow to print under minium weight		N

65. Parameter 595

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Individual Reset(Z Report)	Y/N	Y : Set to erase each repot on Z report. NOTE: May cause effect on other reports N: Set to erase all the report at once Except X1/X2 is separate item	X Report : only call-up record and print Z Report : allow to call-up and erase record for final-report	N

66. Parameter 596

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
X/Z Report	Y/N	Set to make a report NOTE: N makes no transaction therefore return key does not function		Y

67. Parameter 597

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prepack Report	Y/N	Set to make a report on Prepack mode	Set para 596 as N. This set will not make report	Y

68. Parameter 598

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print when Z report clear	Y/N	Set to print on Z report clear	Set as N X report only prints Z report erase only	Y

69. Parameter 599

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print Last Result (X key)	Y/N	Print last Result with X key		N

70. Parameter 600

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Auto clear key tare	Y/N	Set undo key-tare value after sale (when PLU is clear)		Y

71. Parameter 601

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Auto clear weight tare	Y/N	Set undo weight-tare value after sale		Y

72. Parameter 602

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use Canadian tare	Y/N	Set to keep tare value if PLU has own tare value (for reset tare value, must reset scale)		N

73. Parameter 603

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Apply PLU Tare Preferentialy	Y/N	Set to change weight tare value after call-up the PLU (Must greater then call-up PLU tare)		N

74. Parameter 604

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Keep key tare (PLU tare)	Y/N	Allow to over-ride last called-up PLU value. Last key tare value is over-ride by PLU key tare. After transaction PLU tare is clear and manually entered tare value remains	Y= PLU preset tare overrides manual tare. N= Doesn't allow PLU with preset tare to be recalled.	N

75. Parameter 605

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Accumulation tare	Y/N	Set to use accumulation tare NOTE: tare value has to be greater than last one		N

76. Parameter 606

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Subtraction tare	Y/N	Set to use subtraction tare Only set tare value less than last tare value		N

77. Parameter 607

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Tare Input Type	0~4	Check input tare	When invalid value 0: Error 1: No Round 2: Round Off 3: Round Down 4: Round Up	0

78. Parameter 608

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Tare after PLU call	Y/N	Set tare value after PLU is selected		Y

79. Parameter 609

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display tare only weight tare	Y/N	Set to display main tare only PLU is weight type	Apply on EU display mode	N

80. Parameter 610

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Ignore Wt. at Fixed Item	Y/N	Ignore weight when called fixed Item		Y

81. Parameter 611

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display weight tare on PT	Y/N	Display weight tare on PT		N

82. Parameter 612

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use Neg . Weight Limit	Y/N			N

83. Parameter 613

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Transaction Msg Size	Y/N			N

84. Parameter 614

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Clerk Lock Key Method	Numeric			0

85. Parameter 615

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use By Count PLU	Y/N			Y

86. Parameter 616

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Hold Time	Numeric			0

87. Parameter 617

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Clerk Subtotal List	Y/N			N

88. Parameter 618

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Unlimited Fixed Weight	Y/N			N

89. Parameter 619

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use RS-232 for Real Time Transactions	Y/N			N

90. Parameter 620

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Send Real Time Transactions	Y/N			N

91. Parameter 621

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use NMI Discount	Y/N			N

92. Parameter 622

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Send Weight Value <1	Numeric			0

93. Parameter 623

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Use PS2 Keyboard for CL-5000 “ S” type	Y/N			N

94. Parameter 624 is an UNDEFINED PARAMETER

95. Parameter 625

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
EXT NVRAM Type	Y/N			N

96. Parameter 626

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display Primary sign	String	Set money sign for display		$

97. Parameter 627

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Display Last sign	String	Set smaller money sign for display		¢

98. Parameter 628

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight LB Symbol 1	String	Set use weight unit/symbol for lb (CAUTION: do not change)	CAUTION: DO NOT CHANGE	lb

99. Parameter 629

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight LB Symbol 2	String	Set use sub weight unit/symbol for lb (do not change)	CAUTION: DO NOT CHANGE	oz

100. Parameter 630

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight symbol 1	string	Set use weight unit/symbol (CAUTION: do not change)	CAUTION: DO NOT CHANGE	kg

101. Parameter 631

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Weight symbol 2	String	Set use sub weight unit/symbol (do not change)	CAUTION: DO NOT CHANGE	g

102. Parameter 632

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Primary sign	String	Set primary money sign		$

103. Parameter 633

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Last sign	String	Set smaller money sign		¢

104. Parameter 634

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Time separator sign	Char.	Set separator for time/min/sec		:

105. Parameter 635

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Date separator sign	Char.	Set separator for year/month/date		-

106. Parameter 636

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Price output format	Numeric	Set to print money currency (display/ticket, not on label) 0 : " 100.00" type 1 : " $ 100.00" type 2 : " 100.00 $" type 3 : " $ 100.00 c" type 4 : " $100.00c(Greek)" type	For type 3 useage Parameter 633 (last sign)must set before this setting	1

107. Parameter 637

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Price output format (LABEL)	Numeric	Set to print money currency on label (Label print only for total price) 0 : " 100.00" type 1 : " $100.00" type 2 : " 100.00$" type 3 : " $100.00c" type 4 : " $100.00c(Greek)" type * default : 0	For 3,4 type usage Parameter 633 last sign must set before For 4 type only display money is below decimal point (EX:" 56c")	0

108. Parameter 638

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Set Dual Currency	Numeric	0: No use 1 : Use Use currency table 1 as dual currency (Use when 2types of currency is used)		N

109. Parameter 639

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Print [REPACK] on Repack	Y/N	Print [REPACK] on Repack Field		Y

110. Parameter 640 ~ 677 are LABEL CAPTION FIELDS

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
640 > Total Price	String			TOTAL PRICE
641 > By Weight Price				PRICE %C/%U
642 > Non Weight Price				PRICE %C
643 > By Count Price				PRICE %C/PCS
644 > Weight				WT %W
645 > Quantity				QUANTITY
646 > Tare				TARE %W
647 > Saved Price				YOU SAVE
648 > Regular Price				REG PRICE
649 > Tax Price				TAX %C
650 > Packed On Date				PACKED ON
651 > Sell By Date				SELL BY
652 > Cook By Date				COOK BY
653 > Produced Date				PRODUCED
654 > Packed On Time				PACKED ON
655 > Sell By Time				SELL BY
656 > Payment Price				RECEIVE %C
657 > Change Price				CHANGE %C
658 > Refer. Net Weight				NET WT %W
659 > Refer Gross Weight				GROSS WT %W
660 > Manual Weight				MAN WT %W
661 > Percent Tare				TARE %%
662 > Percent Tare Limit				LIMIT %%
663 > Total Price (Total)				TOTAL PRICE %C
664 > Total Count (Total)				TRANSACTION
665 > Total Tax (Total)				TAX %C
666 > Reference				REFERENCE:
667 > Born In				BORN IN:
668 > Bred In				BRED IN:
669 > Slaughtered In				SL IN:

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
670 > Cut In	String			CUT IN:
671 > Total Price (RPK)				TOTAL (REPACK)
672 > Void Count (Total)				VOID COUNT
673 > Void Price (Total)				VOID PRICE
674 > Total Weight (Total)				TOTAL WT %W
675 > Total Quantity (Total)				TOTAL QTY
676 > Ingredient				INGREDIENT :
677 > PLU No.				PLU # :

111. Parameter 678 ~ 700 are UNDEFINED PARAMETERS

112. Parameter 701

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt Tax(Report)	Y/N	Set to print Tax report on scale or clerk report		Y

113. Parameter 702

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt Pay(Report)	Y/N	Set to print Pay report on scale or clerk		Y

114. Parameter 703

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt Round Summary (Report)	Y/N	Set to print Round report on scale or clerk		N

115. Parameter 704

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt Store Name (Report):	Y/N	Set to print store name on report		N

116. Parameter 705 ~ 710 are UNDEFINED PARAMETERS

117. Parameter 711

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt Repack(Report)	Y/N	Set to print Repack report on scale or clerk		Y

118. Parameter 712

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt Prepack(Report)	Y/N	Set to print Prepack report on scale or clerk		Y

119. Parameter 713

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt Negative (Report)	Y/N	Set to print Negative report		Y

120. Parameter 714

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Prt No Sale Open (Report)	Y/N	Set to print No sale open count		Y

121. Parameter 715 ~ 770 are UNDEFINED PARAMETERS

122. Parameter 771

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Clerk	Y/N	Enable Clerk Function & Menu		N

123. Parameter 772

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Discount	Y/N	Enable Discount Function & Menu		N

124. Parameter 773

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable TAX Table	Y/N	Enable Tax Function & Menu		N

125. Parameter 774

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Origin	Y/N	Enable Origin Function & Menu		N

126. Parameter 775

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Tare Table	Y/N	Enable Tare Table Function & Menu		N

127. Parameter 776

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Nutri-Facts	Y/N	Enable Nutri-Facts Function & Menu		Y

128. Parameter 777

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Traceability	Y/N	Enable Traceability Function & Menu		N

129. Parameter 778

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Customer	Y/N	Enable Customer Function & Menu		N

130. Parameter 779

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Currency	Y/N	Enable Currency Function & Menu		N

131. Parameter 780

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Department	Y/N	Enable Department		Y

132. Parameter 781

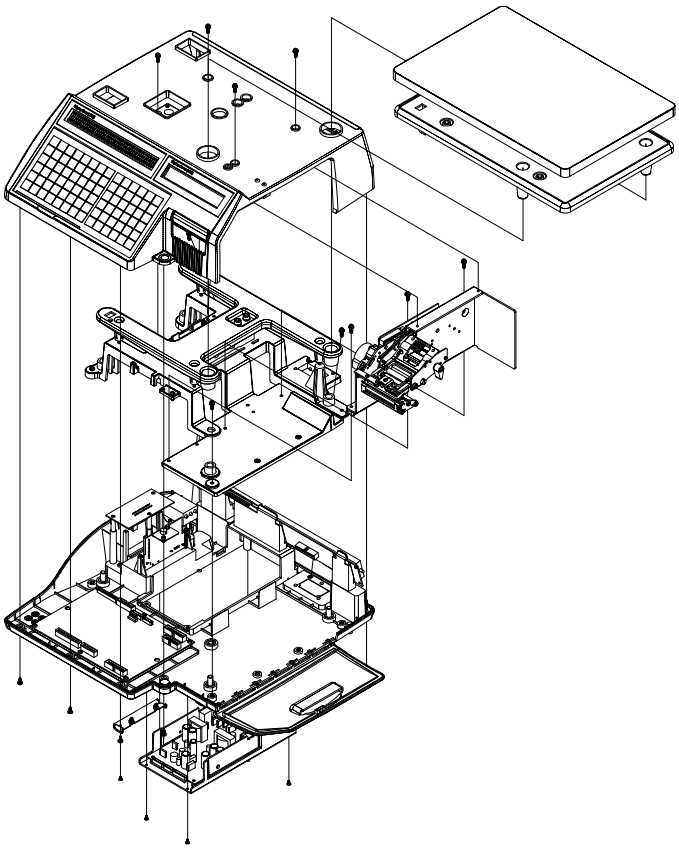
MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
Enable Group	Y/N	Enable Group		Y

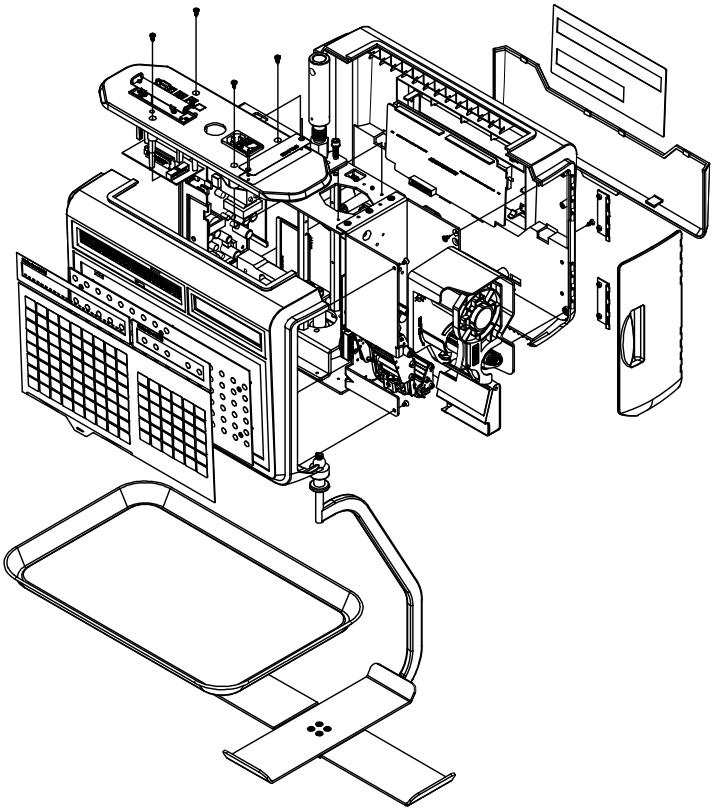
133. Parameter 782 ~ 798 are UNDEFINED PARAMETERS

134. Parameter 799

MESSAGE	VALUE	CONTENT	REMARK	DEFAULT
A/D Filter Level	Numeric			0

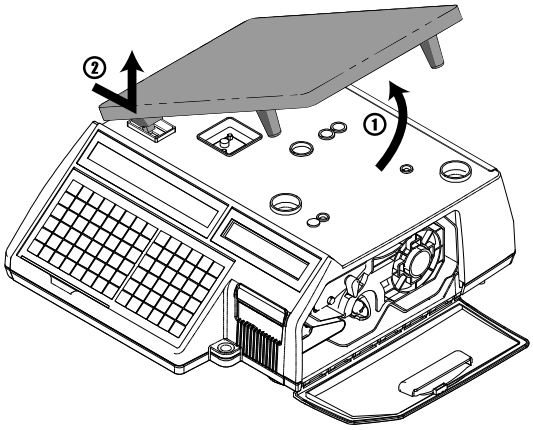
6. Servicing & Parts Replacement

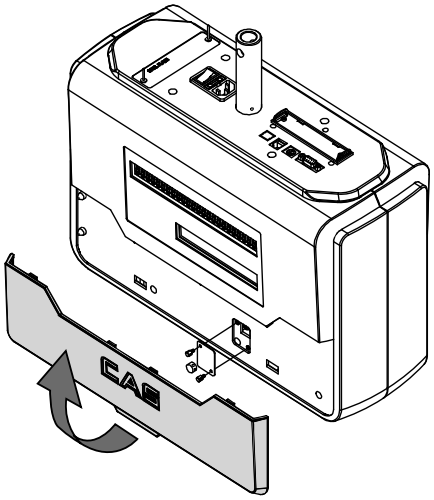




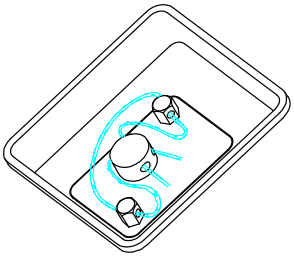
6.1 Platform Safety Overload Adjustment

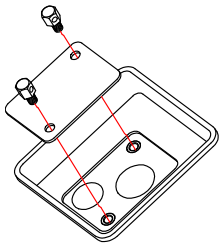
1) Turn power off and remove power cord
2) Remove tray from scale (make sure lift right side first and unlock the left hook)



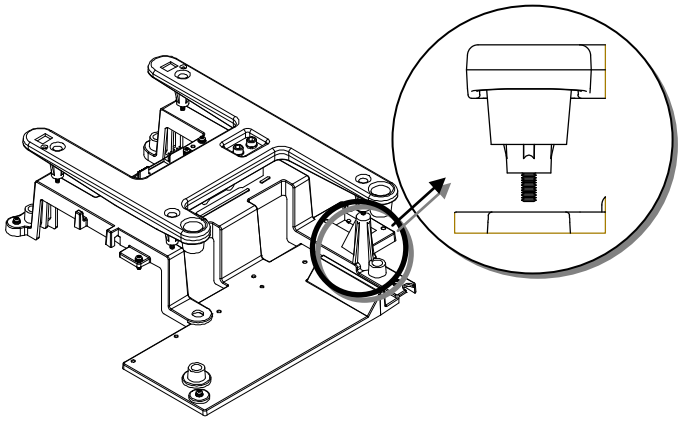


3) Remove calibration seal

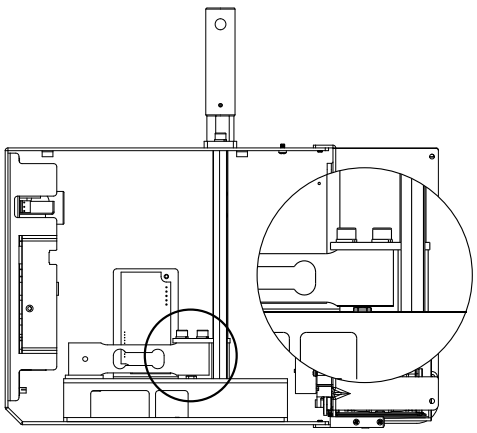




4) Remove the upper case
5) Put 150% of max weight on platform rear right corner of platform. The allen-bolt should not be touching.
6) Adjust the allen-bolt so that it is almost touching the bottom frame. (See Figure)
7) Perform this procedure on each corner of the platform.



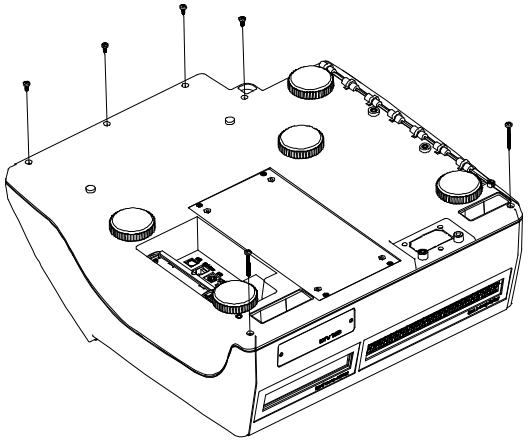
B,P,R-type

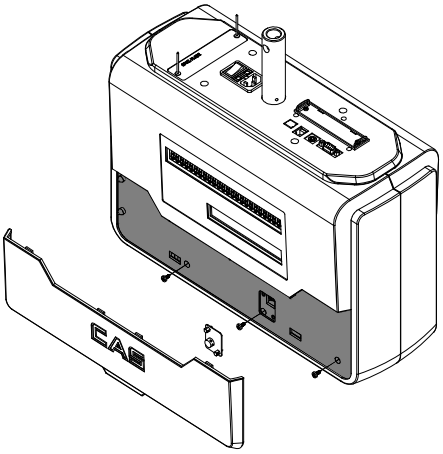


H-type

6.2 Removing the Upper Case

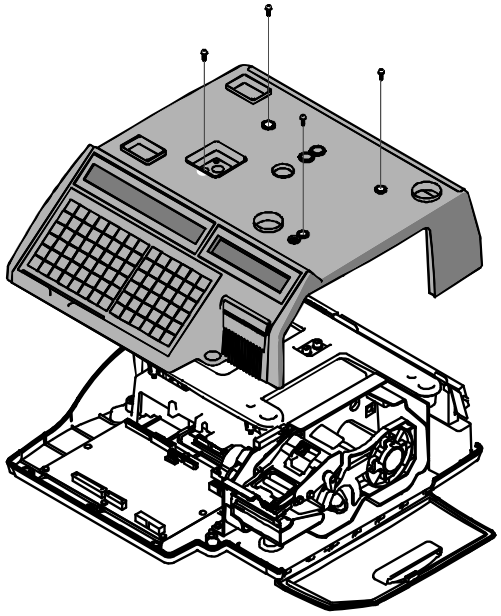
1) Turn power off and remove power cord
2) Remove tray from scale (make sure lift right side first and unlock the left hook)
3) Remove printer cartridge
4) Remove 6 bolts from bottom case(for pole type: remove pole mount bolt first)

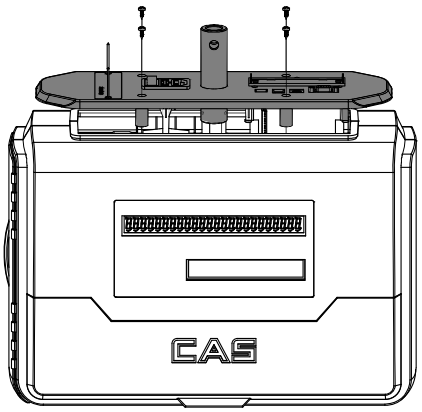




For hanging type: remove 3 bolts from front cover

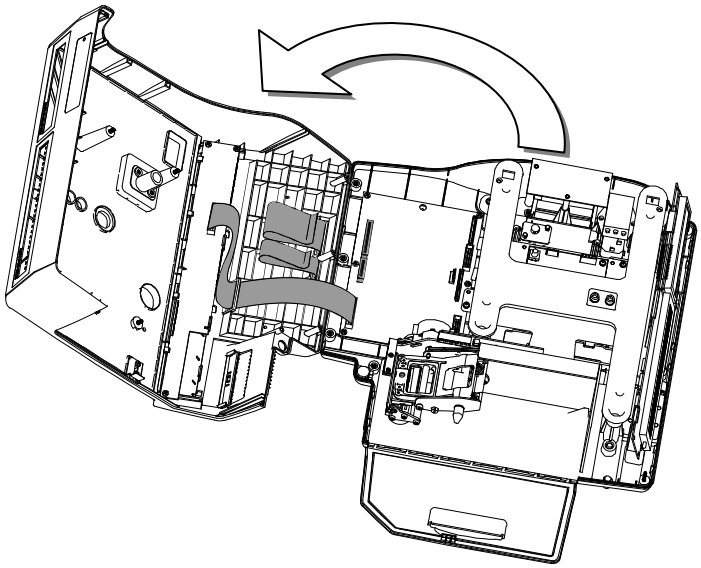
5) Remove 4 bolts from upper case





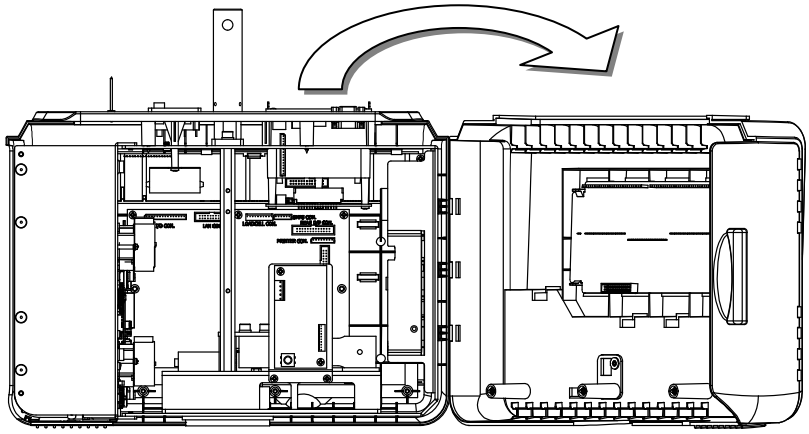
6) Remove keybord and display cable to remove upper case

B,P,R type:



* Be careful with front key pad connector

H type:



* Open up front cover from printer part.

NOTE: Assemble hook part first.

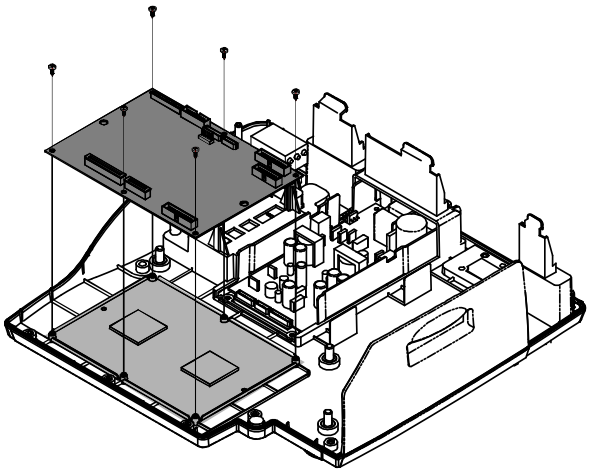
Remove front cover bolt (2 bolt)

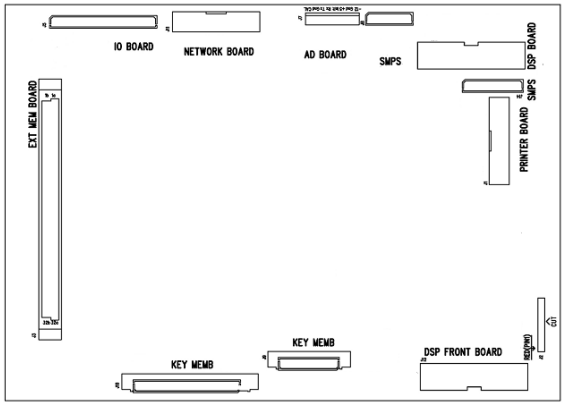
Open up from printer side to disassambel front cover

6.3 Main board Replacement

1) Turn power off and remove power cord
2) Remove following cables
   - SMPS Line
   - Key Board Line
   - Display Board Line
   - Printer Board Line
   - A/D Board Line
3) Remove following bolt to remove main board

B,P,R type:





Connector locations

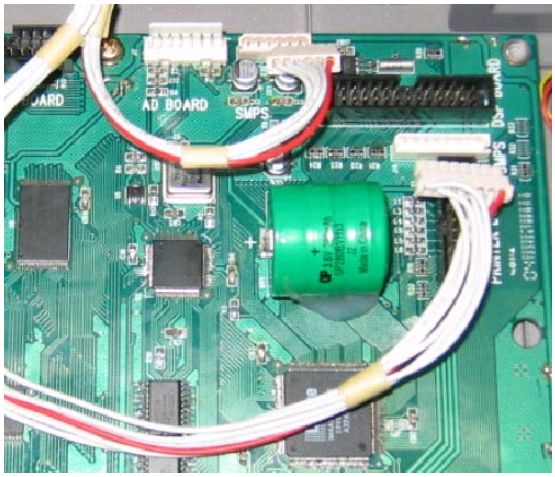
H type:

1. Remove power cable from SMPS and ground wire.

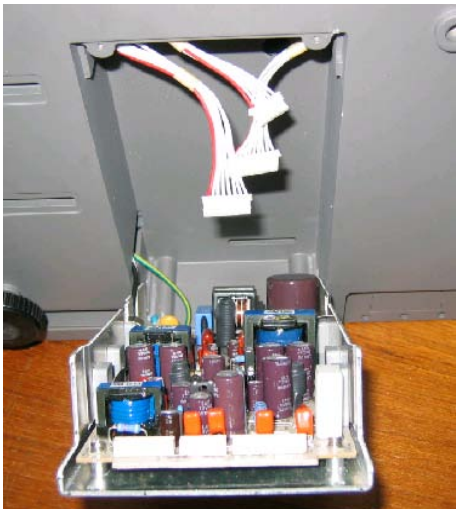
2. Remove support frame and replace main board.

6.4 Power Supply Replacement

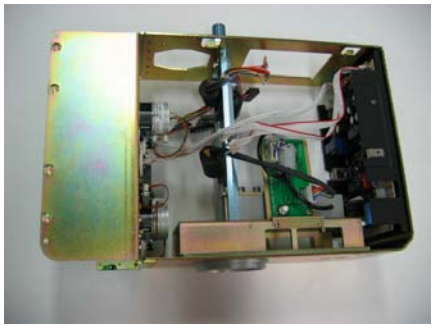
1) Turn power off and remove power cord
2) Remove upper case(following 6.2)
3) Remove power lines (white cables)

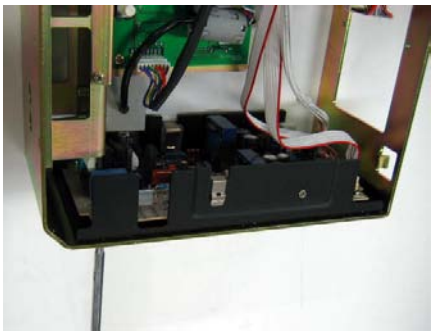


4) Remove bottom Power module(SMPS) bolt(4)



5) Pull Power Module forward and remove power cables on SMPS

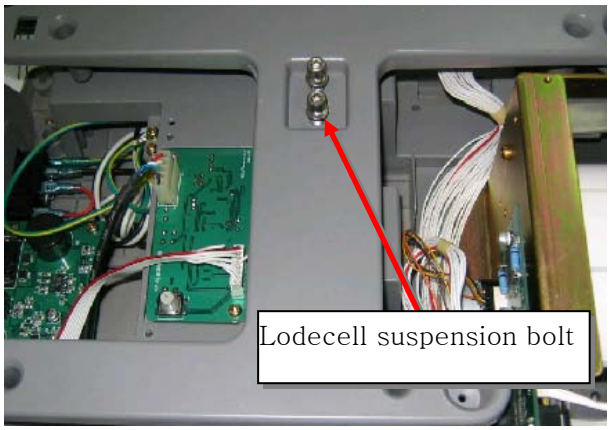




6) Disassamble support frame and remove side bolt(4) to remove power supply.

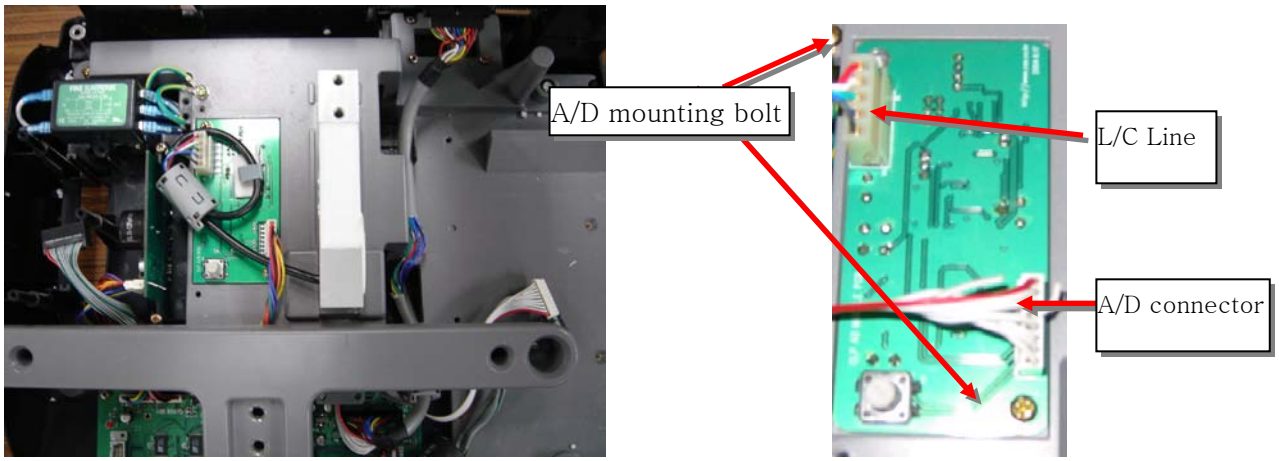
6.5 Load Cell & AD Converter Replacement

1) Turn power off and remove power cord
2) Remove upper case(6.2)
3) Remove upper frame(Load cell mount)bolt

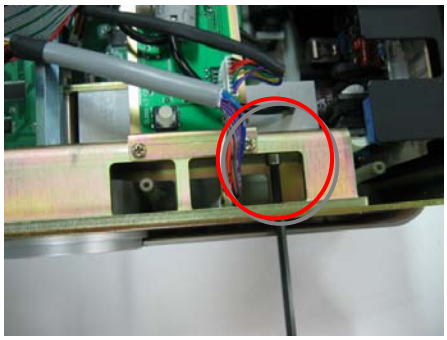


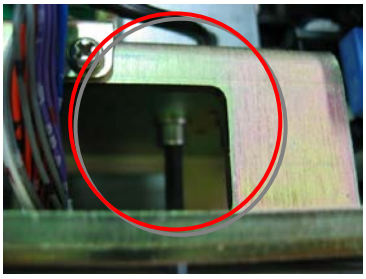
4) Remove bottom frame bolt

NOTE: Be careful with load cell, this procedure may cause critical damage on scale



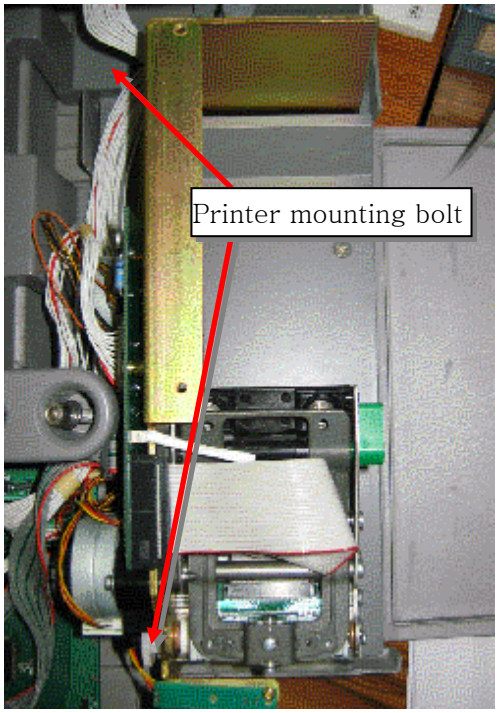
5) Remove A/D module bolt(2) and cable(A/D data line, L/C line)
6) For H type: Remove LC suspension bolt from bottom frame (there are two holes for easy access)



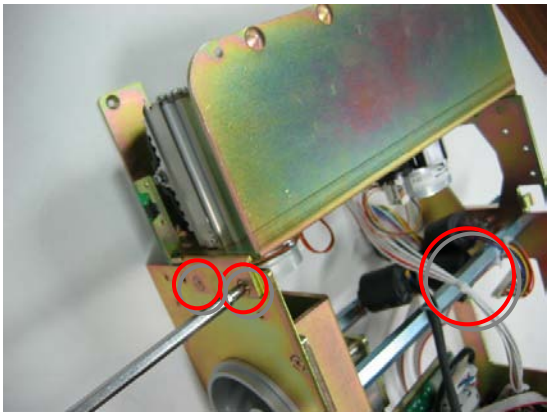


6.6 Print Assembly Replacement

1) Turn power off and remove power cord
2) Remove printer cartridge
3) Remove upper case(6.2)
4) Remove printer connecting bolt



(B,P,R type)



(H type)

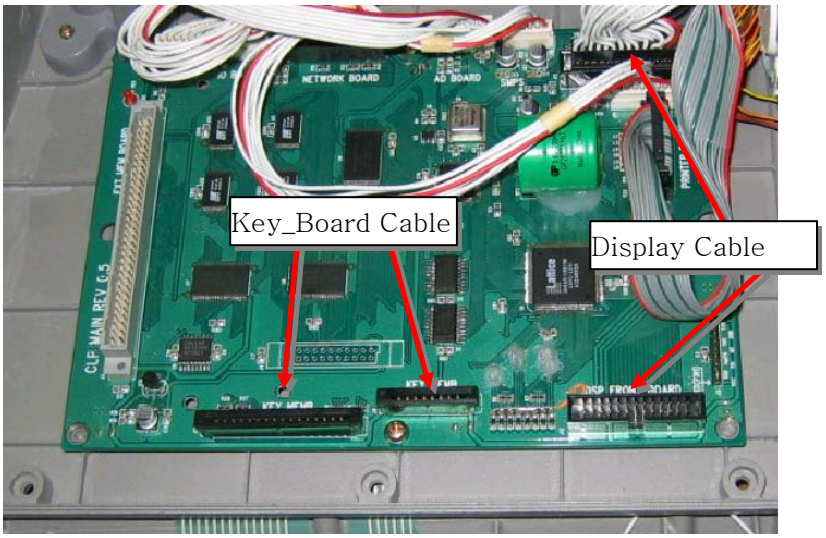
NOTE: You must remove center column first

5) Remove printer module (lift upper right side first)

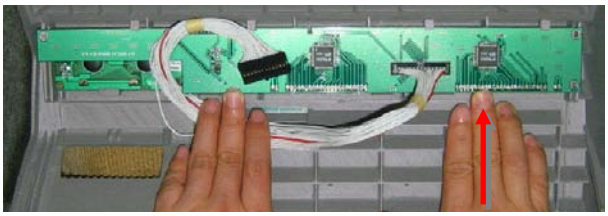
6)

6.7 Display Replacement

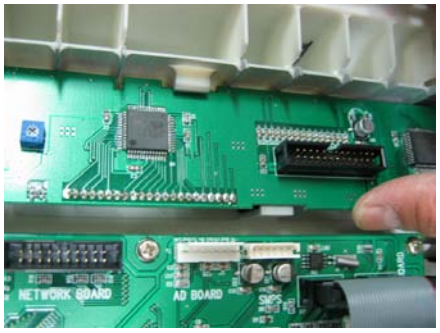
1) Turn power off and remove power cord
2) Remove upper case (6.2)
3) Remove keyboard and display cable of main board

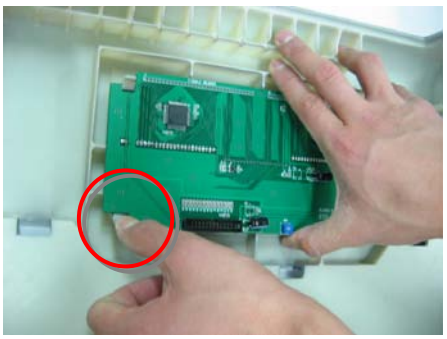


4) Remove front display board B,P,R type: lift display board at arrow side
Remove rear display board by lifting bottom part to unlock



5) Remove Front, Rear display by unhooking support part.

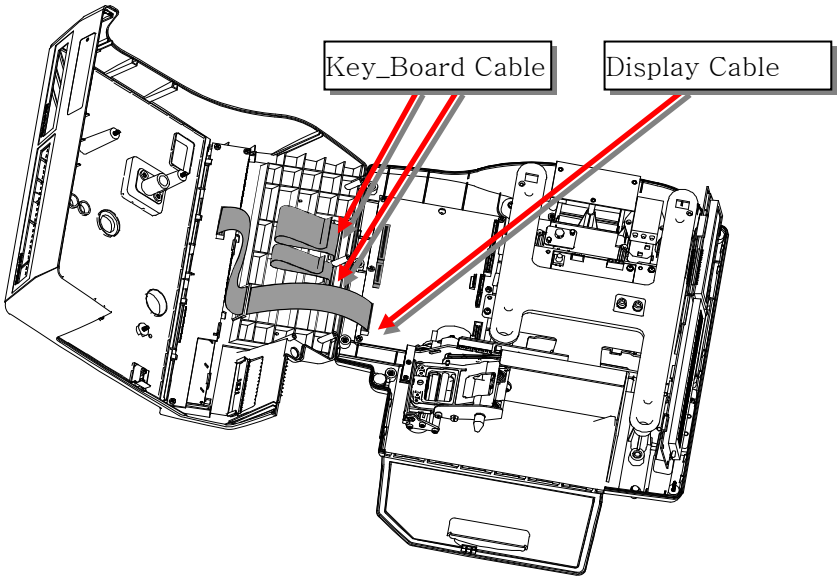




6.8 Keyboard Replacement (With / Without breaking CAL seal)

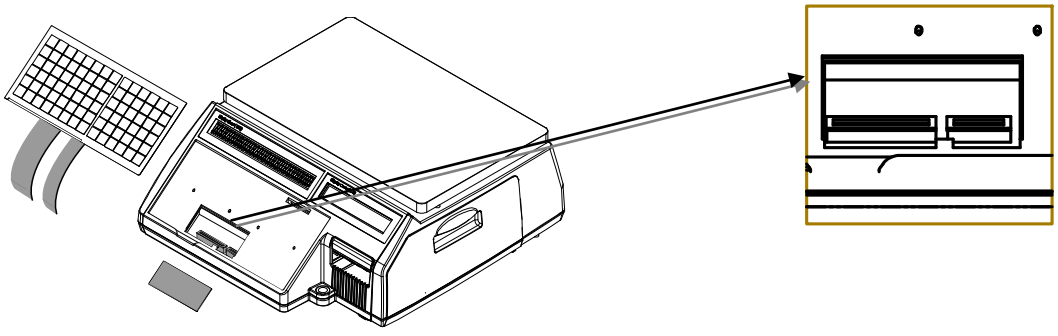
A: Seal Breaking Method

1) Turn power off and remove power cord
2) Remove upper case(6.2)
3) Remove keyboard and display cable from main board and replace new keyboard



B: Non Seal Breaking Method

4) Remove keyboard from upper case
5) Remove keyboard support plate and disconnect keyboard cable by pulling the cable lock.
6) Connect keyboard cable by pushing keyboard suspend lock / add metal support plate
7) Stick the keyboard pad



H-type

-Remove keypad cover and metal dome cover

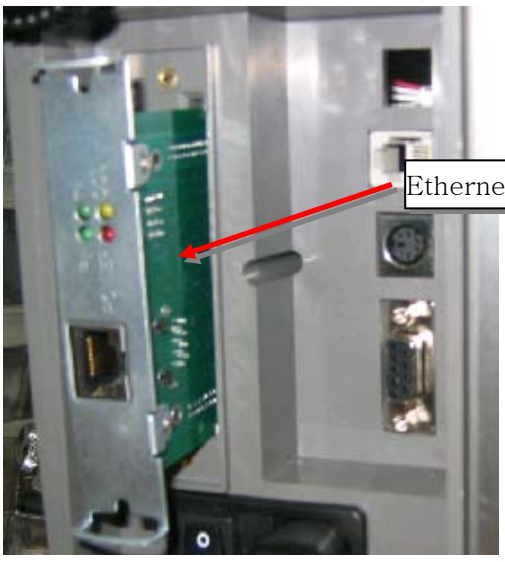
7. Installing Options

Option Modules available for upgrading the CL5000 consist of the Memory Expansion board and the Network Card.

7.1 Installing Ethernet Card

1) Turn power off and remove power cord
2) Remove Ethernet card cover

3) Insert Ethernet card into slot (use same slot for wired or wireless module)



B, P, R type

H type

4) Turn on power when installation is finished
5) Set up communication configuration (menu code:1900)

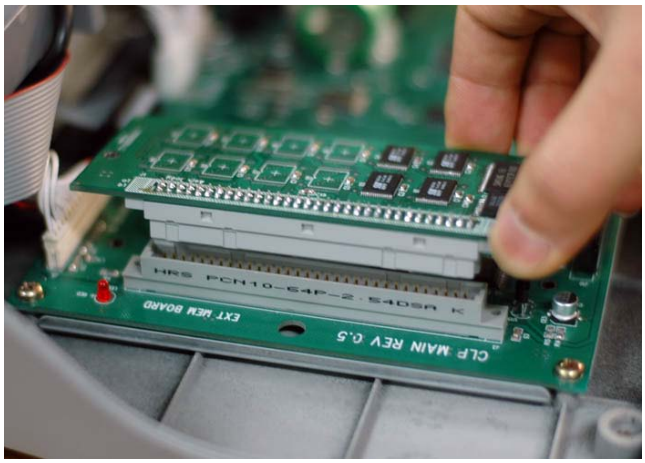
7.2 Installing Wireless Lan Card

1) Turn power off and remove power cord
2) Remove Ethernet card cover
3) Insert Wireless LAN Card.
   i. Insert local wireless CF card

4) Turn on power when installation is finished

7.3 Installing Memory Expansion Card

5) Turn power off and remove power cord
6) Remove Upper Case
7) Insert Memory Expansion Card.



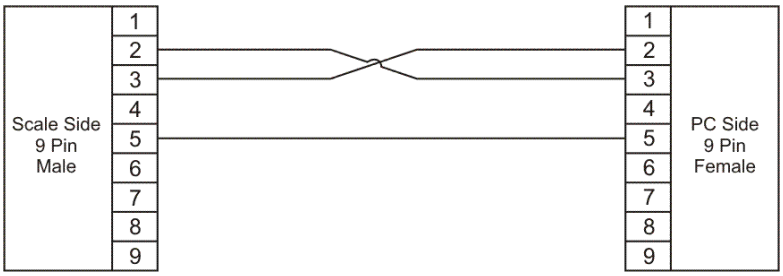
8) Turn on power when installation is finished

8. Update

8.1. Firmware update

Updating the firmware in the CL5000 requires the following:

1.) CL5000 Firmware Update Program (CL5fwupdate.exe)
2.) CL5000 Firmware ROM file (BIN file)
3.) CL5000 Setting ROM file (ROM file)
4.) Serial Communications Cable with the following pinouts



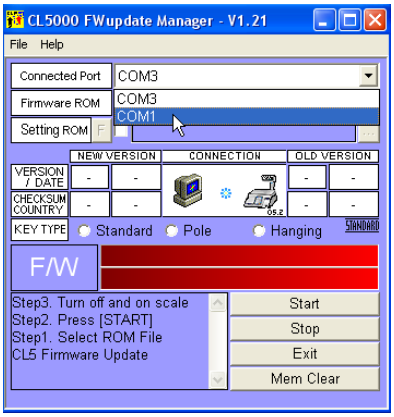
Note: Prior to performing a firmware upgrade to the CL5000 all data files should be backed up.

CL5000 Firmware ROM Download

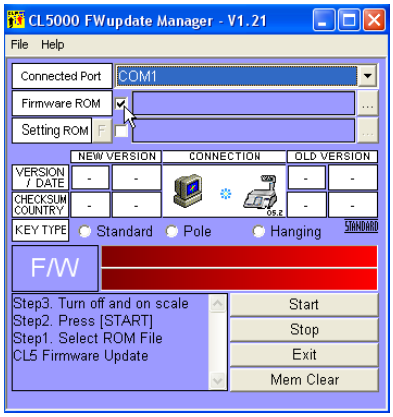
Power OFF the scale and connect the serial cable between the CL5000 and the PC.

On the PC, double click on the CL5fwupdate.exe file.

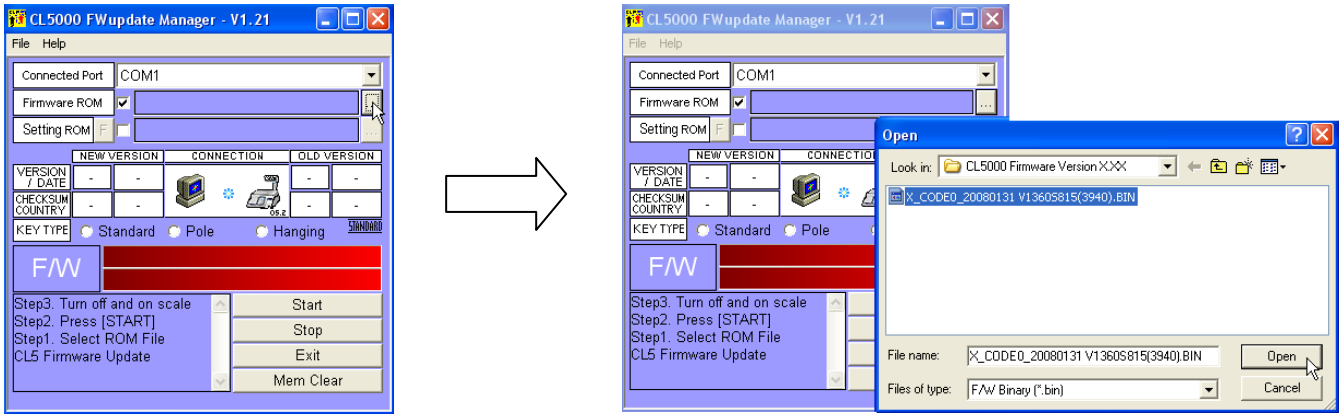
1.) Select the COM port



2) Select the Firmware ROM download by clicking in the box next to it.

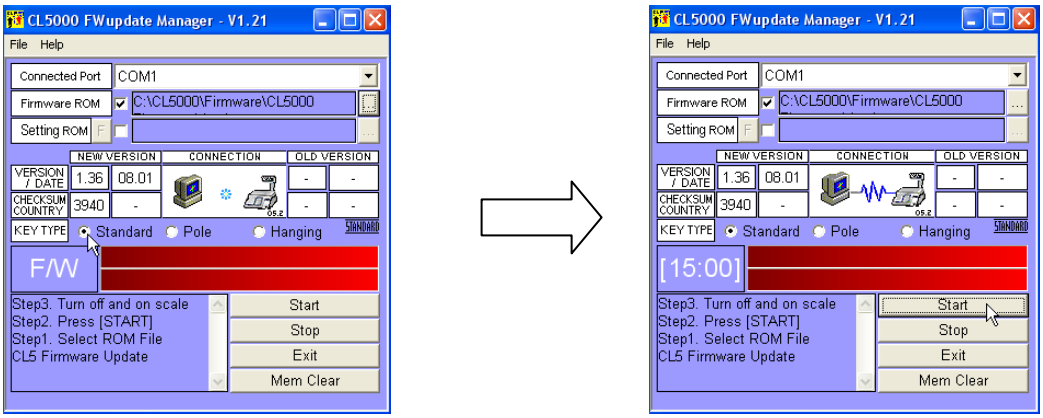


3.) Select the Firmware ROM version by clicking on the file select button. (this should be a BIN type file)



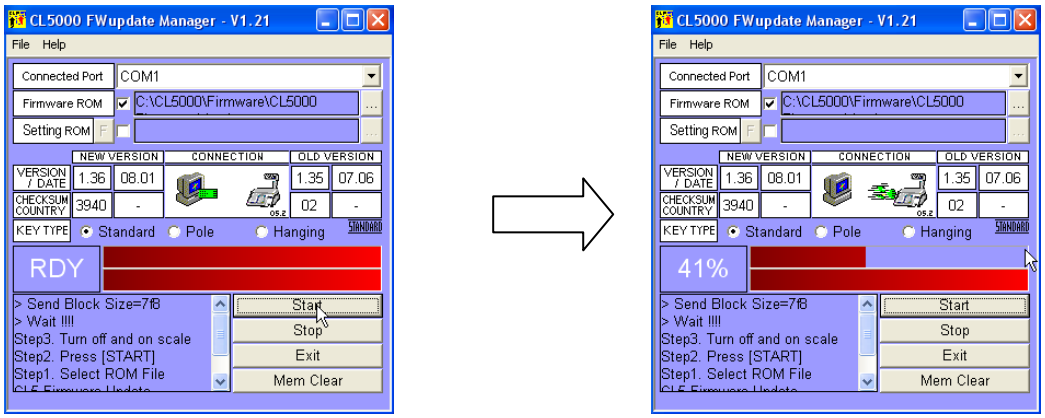
4.) Select the correct keyboard type for your CL5000.

5.) Press the Start Button.



6.) Turn the CL5000 ON.

7.) Download should start. Status bars show progress percentage.

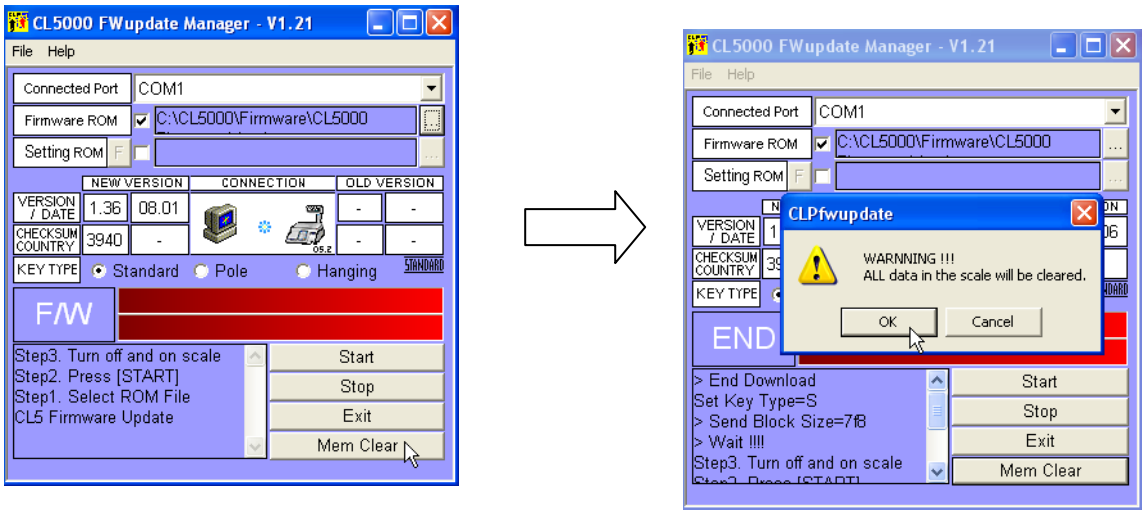


When the download is finished the scale will restart. You should see the new firmware version number in the LCD display as the scale performs its countdown.

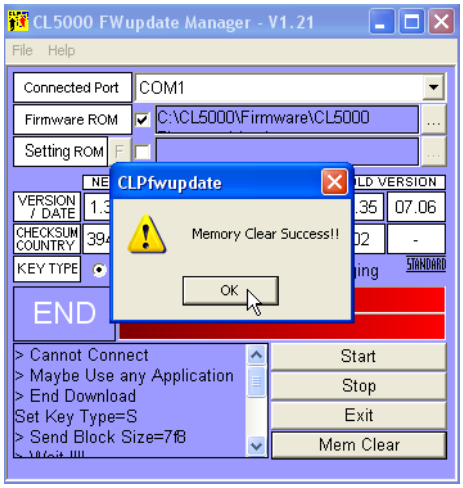
CL5000 Setting ROM Download

Before updating the Setting ROM you should perform a Memory Clear.

1.) Click on the Mem Clear button. You should get a warning screen. Click OK. You should get a Mem Clear status screen. If you don't get the status screen, click on the Mem Clear button again.

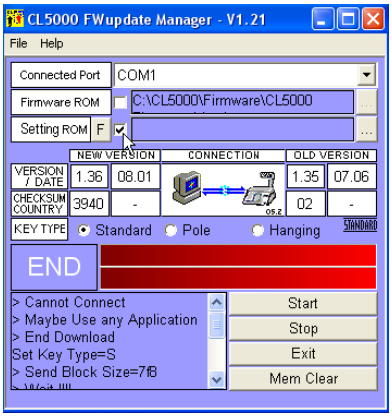


2.) The Mem Clear status screen should say Memory Clear Success. Click OK. Turn the CL5000 OFF and then ON and the Mem Clear will be performed.

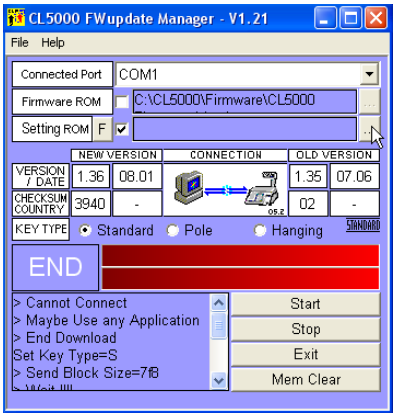


Note: When Mem Clear is finished, the seven segment display will show "rdY nEEd CAP" and the LCD display will show a checkerboard pattern.

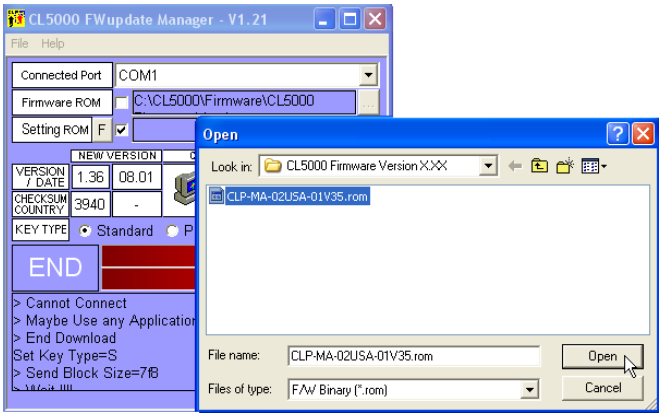
1.) Select the Setting ROM download by clicking in the box next to it.



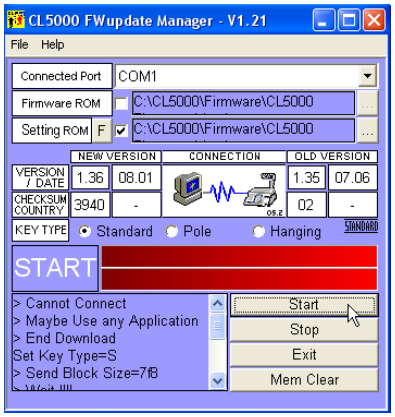
2.) Select the Setting ROM file by clicking on the file select button.



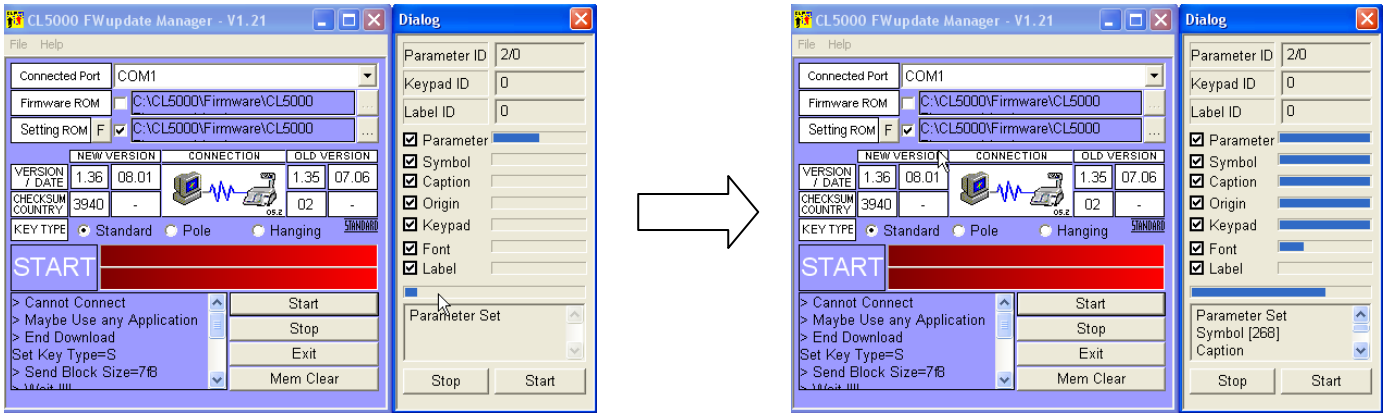
3.) Select the Setting ROM file. (this should be a ROM type file) Click the Open Button..



4.). Press the Start Button. After about 10 seconds the ROM will start downloading.



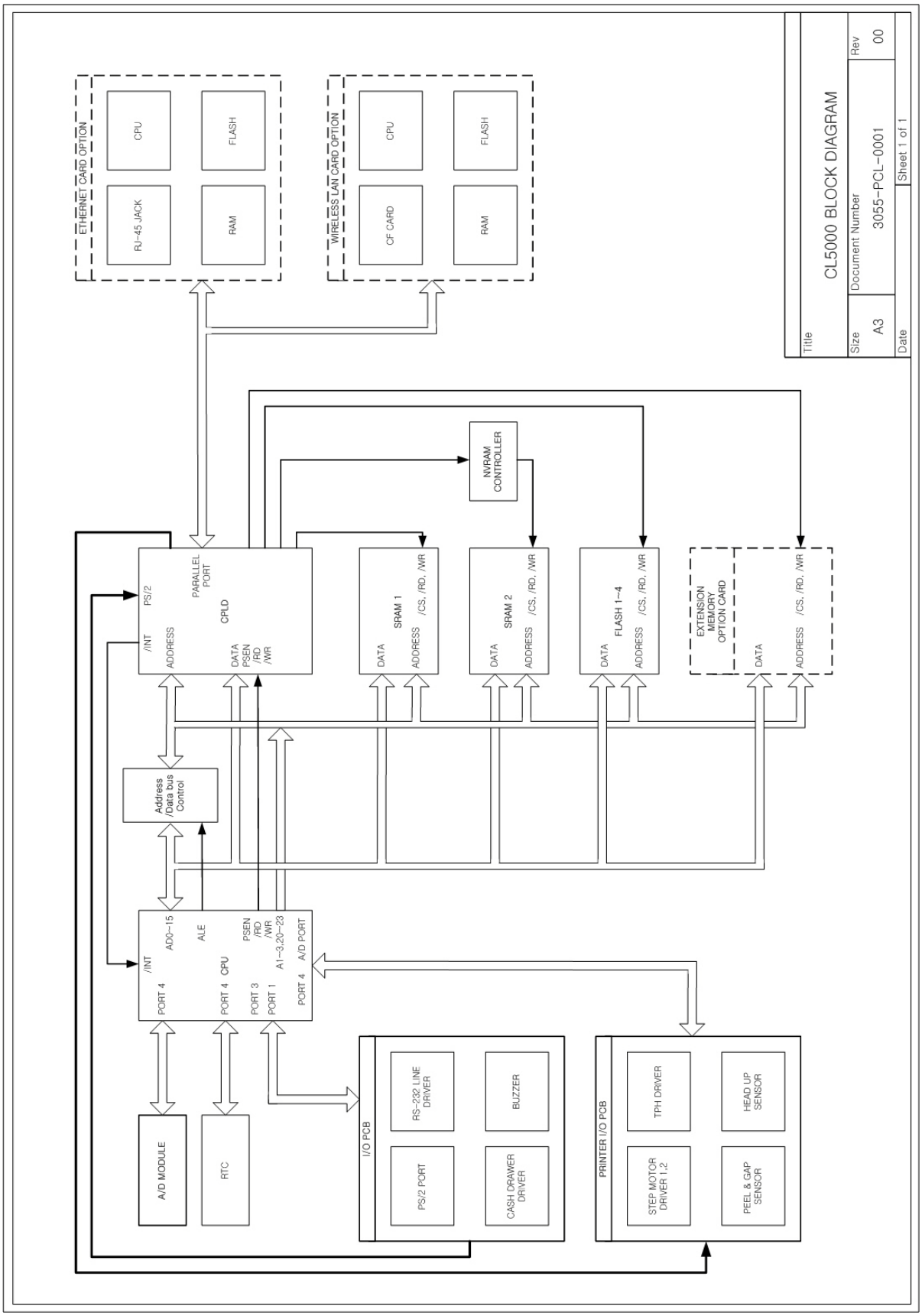
5.) You should see the Setting ROM download screen.



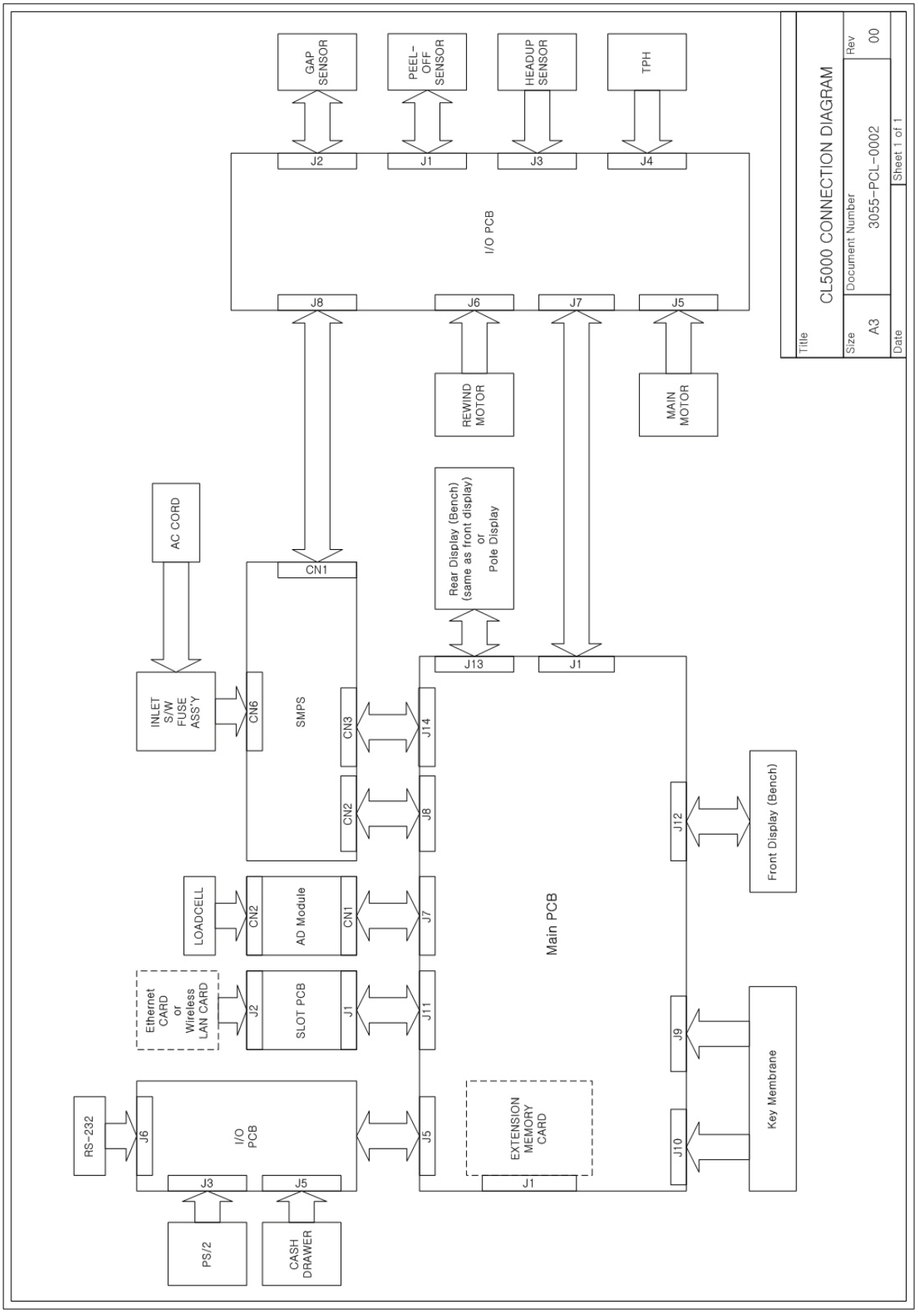
When the Setting ROM download is finished the scale will restart and perform a countdown. Both scale displays should be normal now. Power the scale off and disconnect the serial cable. Close the CL5000 update software program.

9. Schematic Diagrams

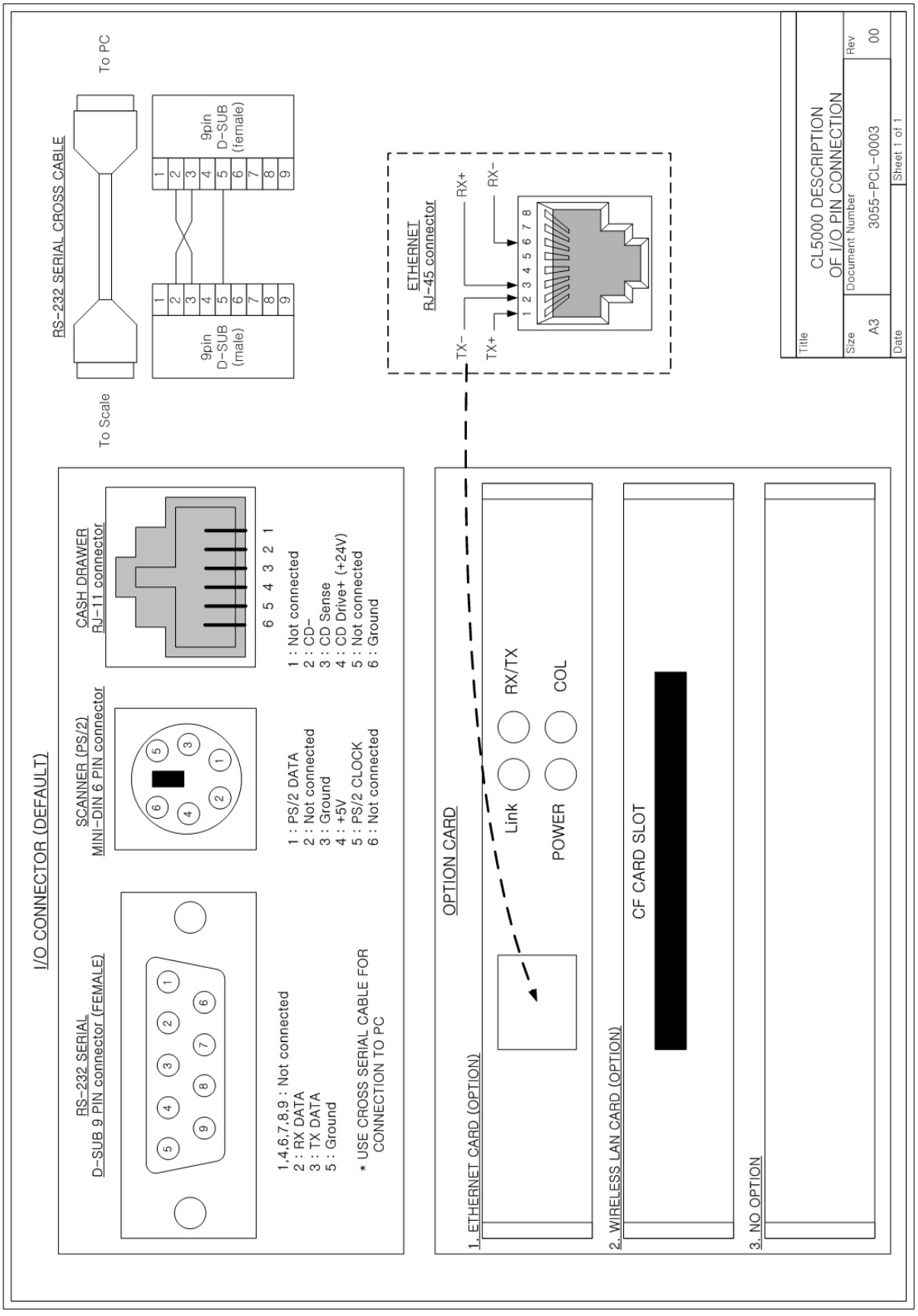
9.1 System Block Diagram



9.2 Connection Diagram

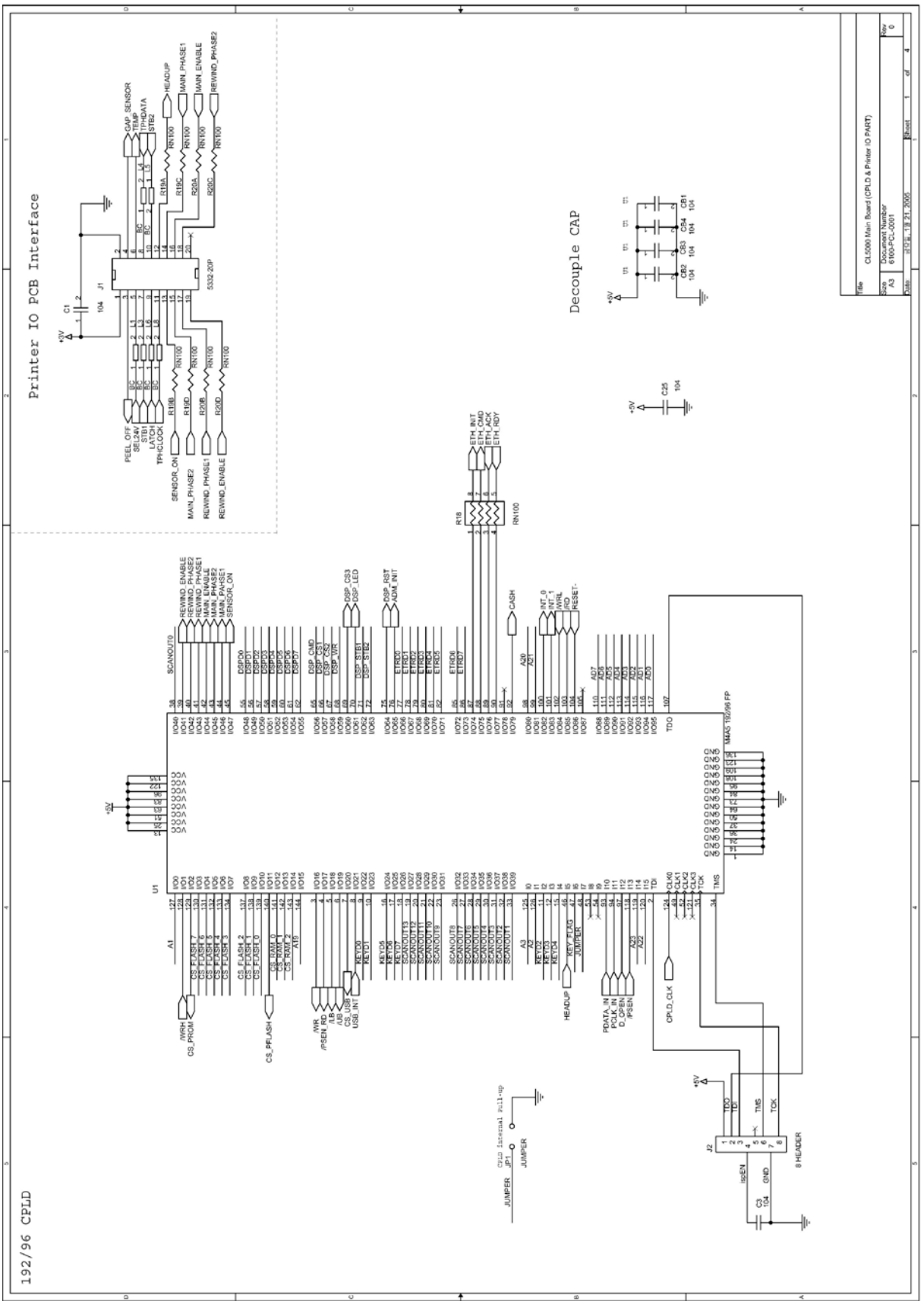


9.3 I/O Pin Connection

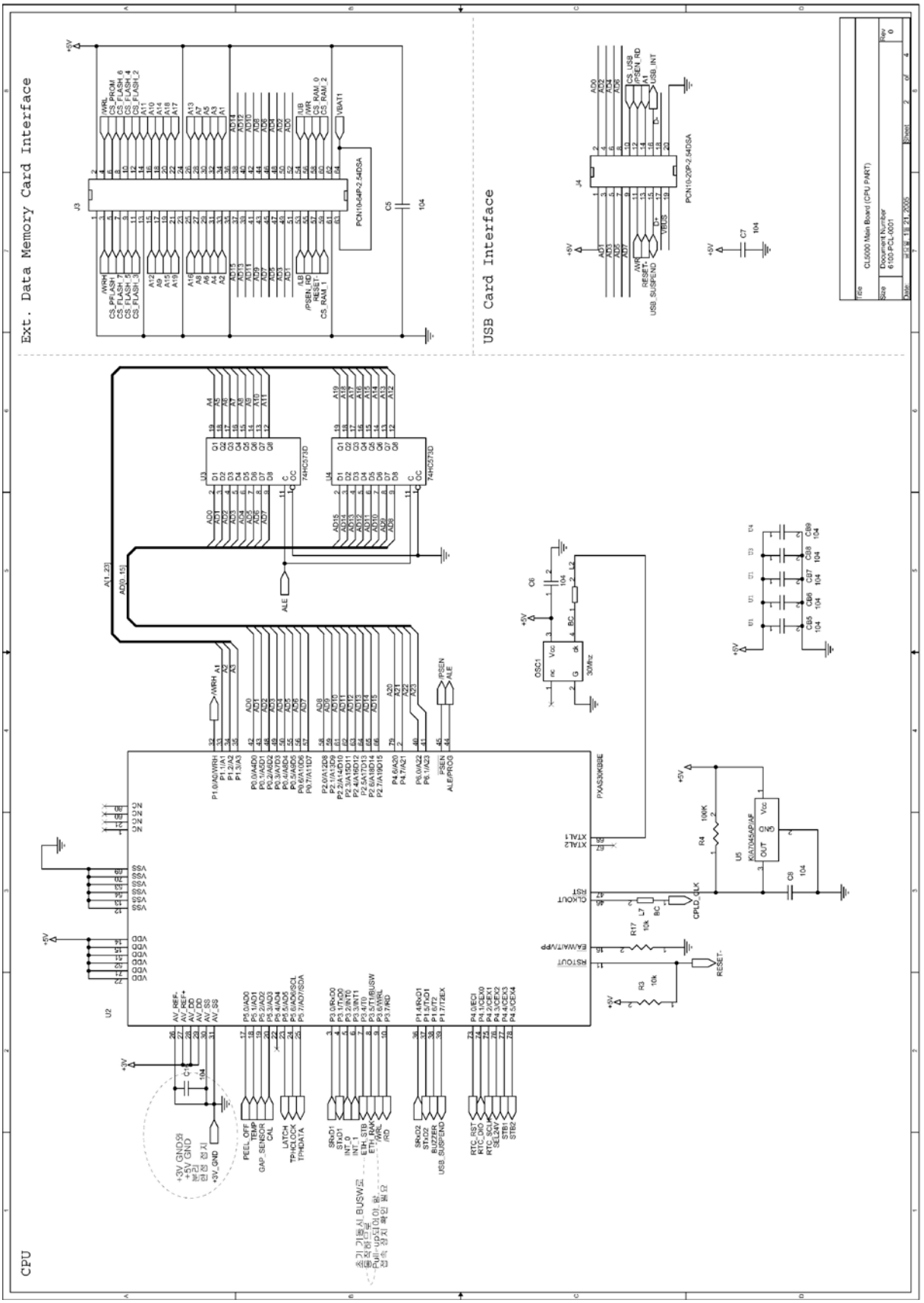


9.4 Main PCB

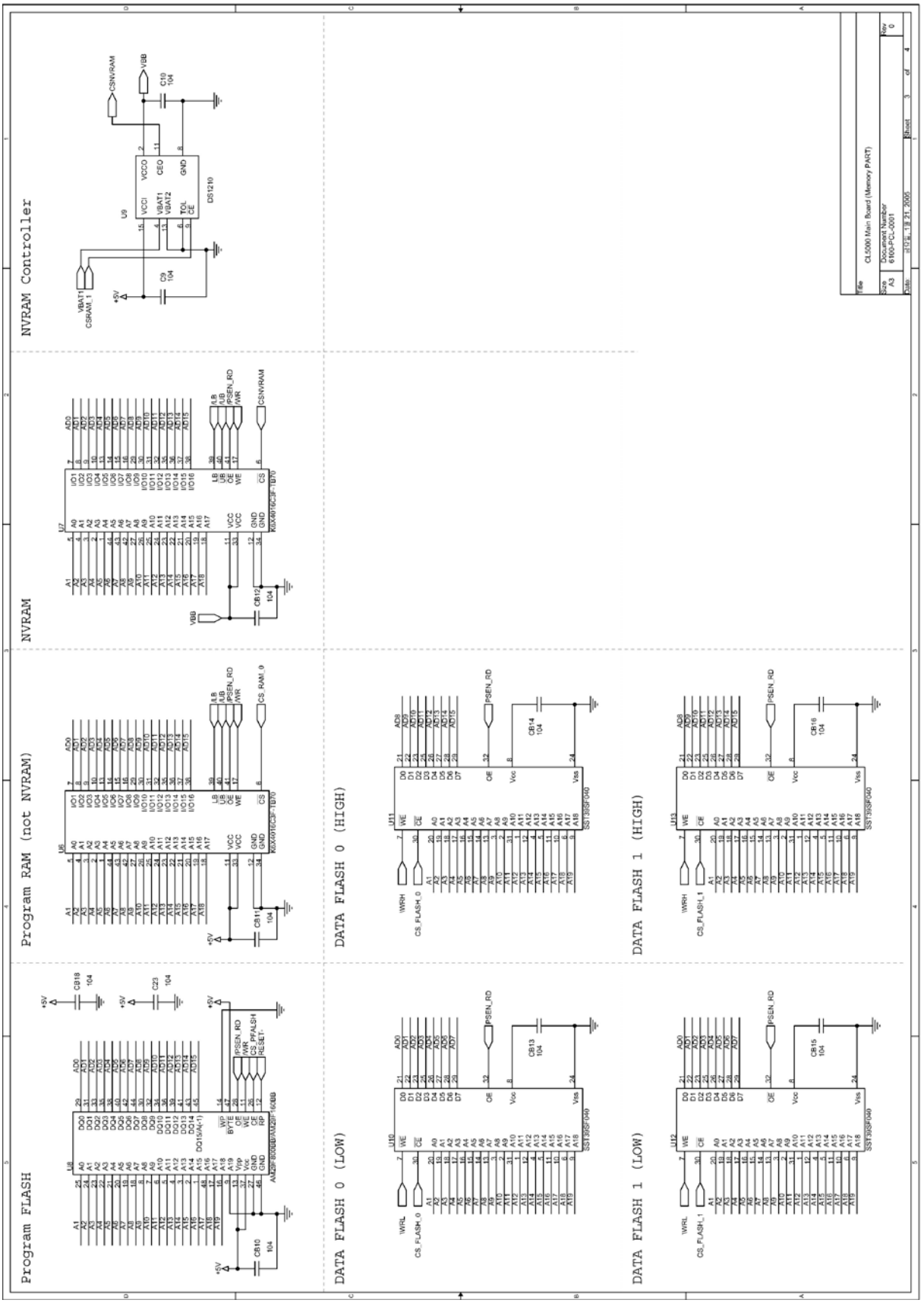
1) Part 1



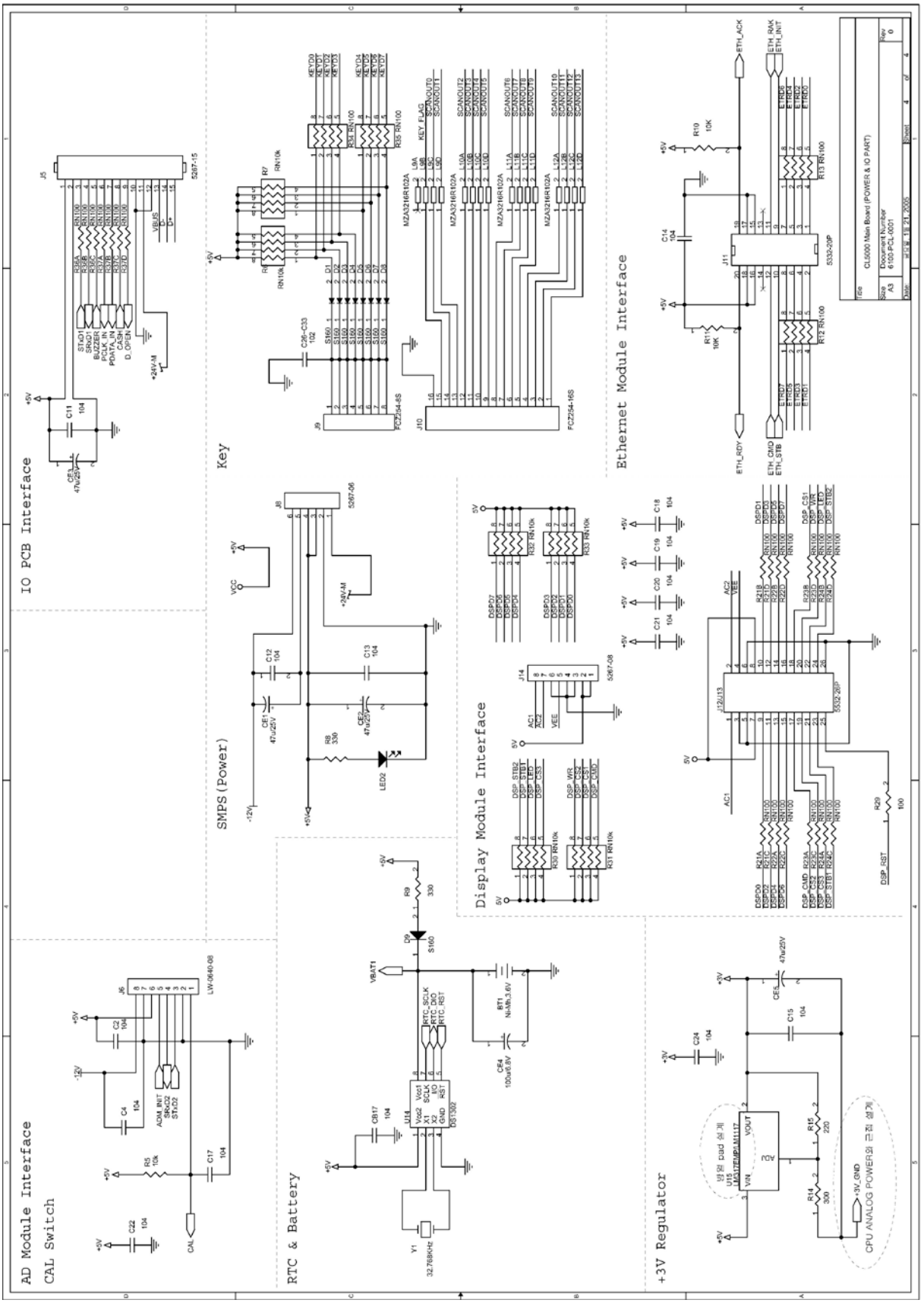
2) Part 2


Ext. Data Memory Card Interface
USB Card Interface
CPU
CL5000 Main Board (CPU PART)
PCN10-04P-2.54DSA
PCN10-03P-2.54DSA
74HC573D
PXA530KBBE
KIA7045AP/AF
30Mhz
CS_PROM
CS_FLASH_6
CS_FLASH_4
CS_FLASH_2
CS_FLASH_7
CS_FLASH_5
CS_FLASH_3
CS_RAM_0
CS_RAM_2
CS_RAM_1
CS_USB
RESET
USB_INT
RESET-
USB_SUSPEND
LATCH
TPHCLOCK
TPHDATA
PEEL_OFF
GAP_SENSOR
CAL
RTC_RST
RTC_DIO
RTC_SCLK
STB1
STB2
CPLD_CLK

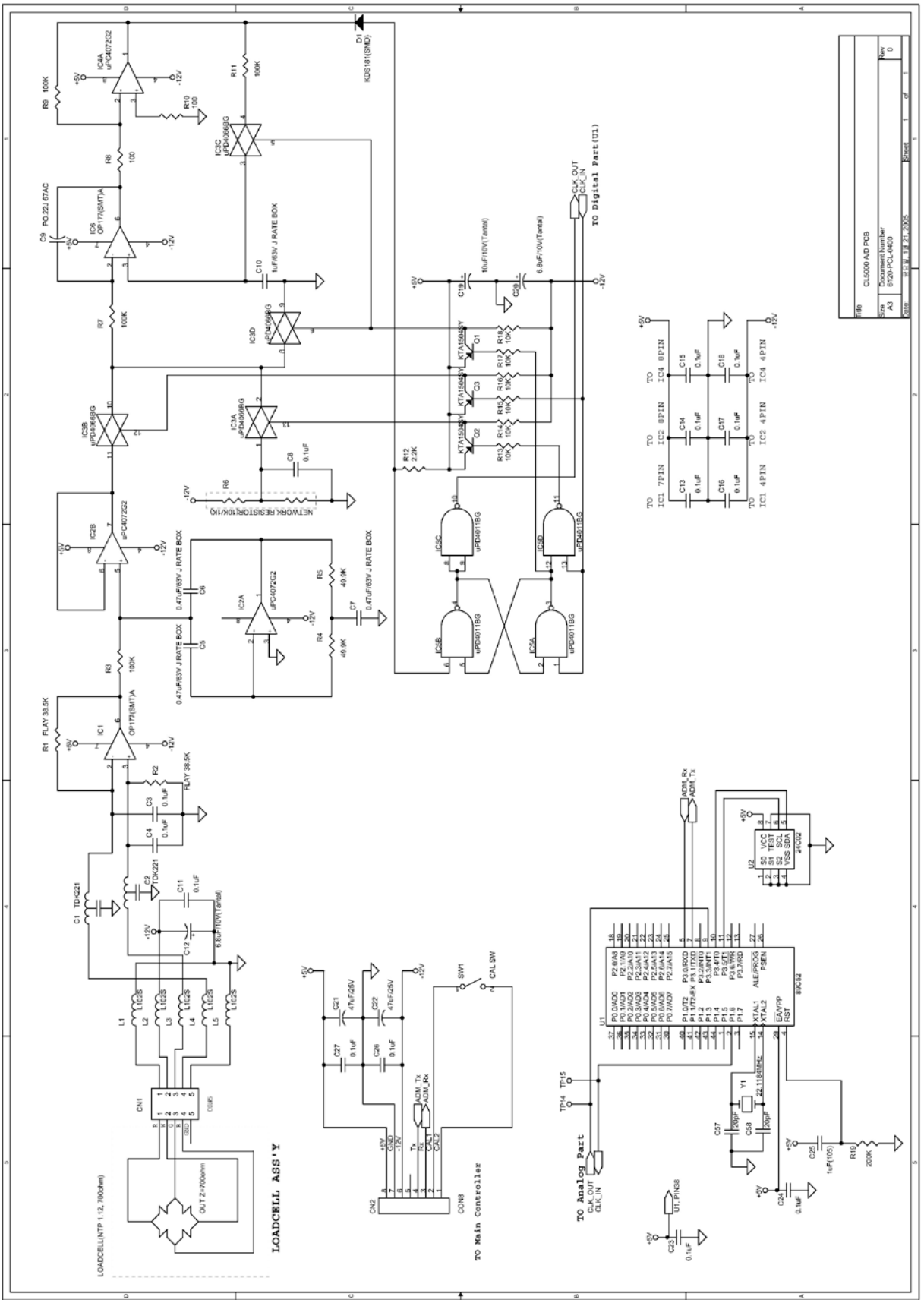
3) Part3


NVRAM Controller
NVRAM
Program RAM (not NVRAM)
Program FLASH
DATA FLASH 0 (HIGH)
DATA FLASH 1 (HIGH)
DATA FLASH 0 (LOW)
DATA FLASH 1 (LOW)
CSNVRAM
VBB
VBAT1
CSRAM_1
DS1210
KM416C256D
KM416V1604C
AM29F800BB/AM29F160BB
SST39SF040
PSEN_RD
RESET
CS_RAM_0
CS_FLASH_0
CS_FLASH_1
CL5000 Main Board (Memory PART)
Document Number
6100-PCL-0001

4) Part4

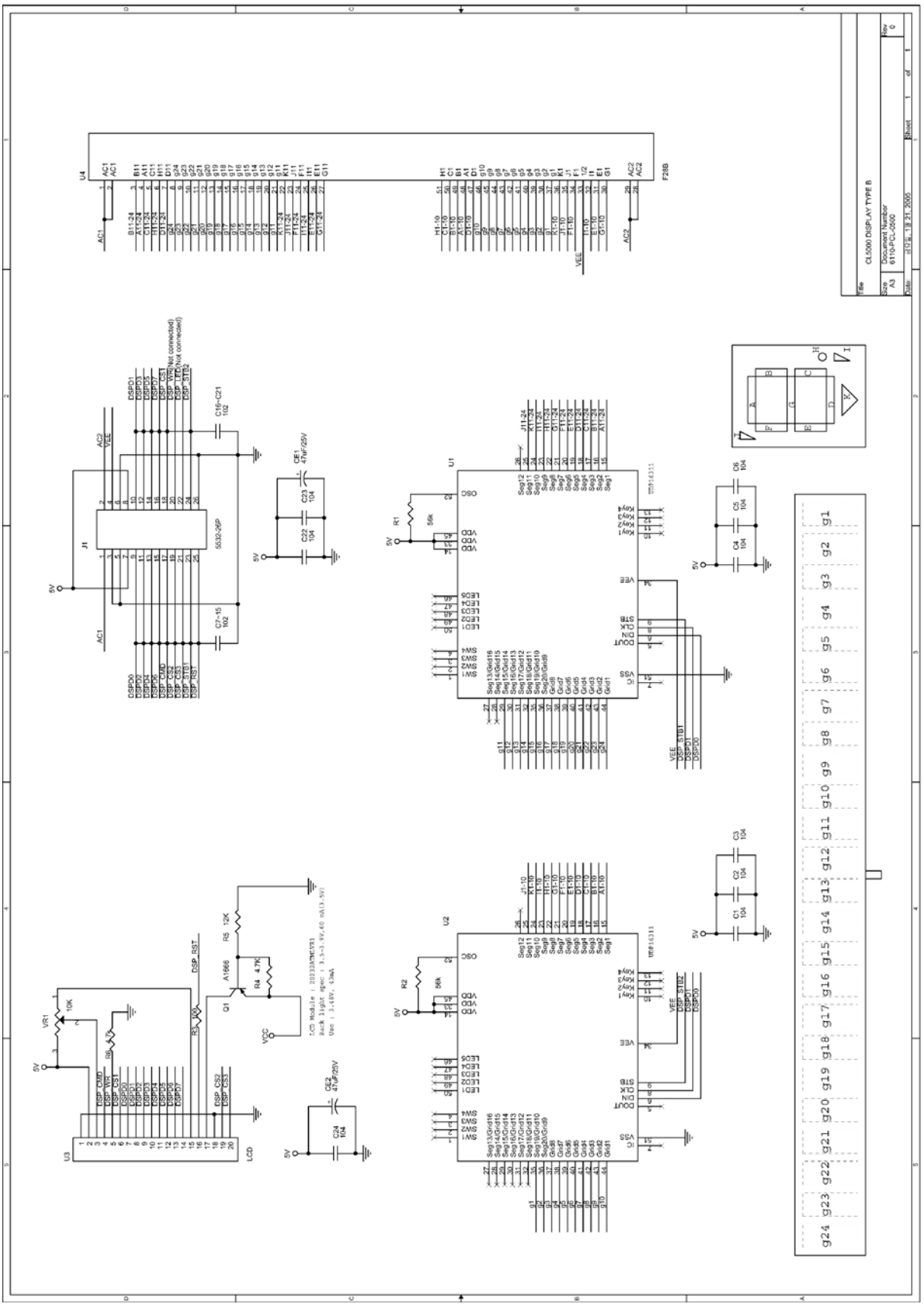

IO PCB Interface
Key
Ethernet Module Interface
SMPS(Power)
Display Module Interface
AD Module Interface
CAL Switch
RTC & Battery
+3V Regulator

9.5 A / D PCB

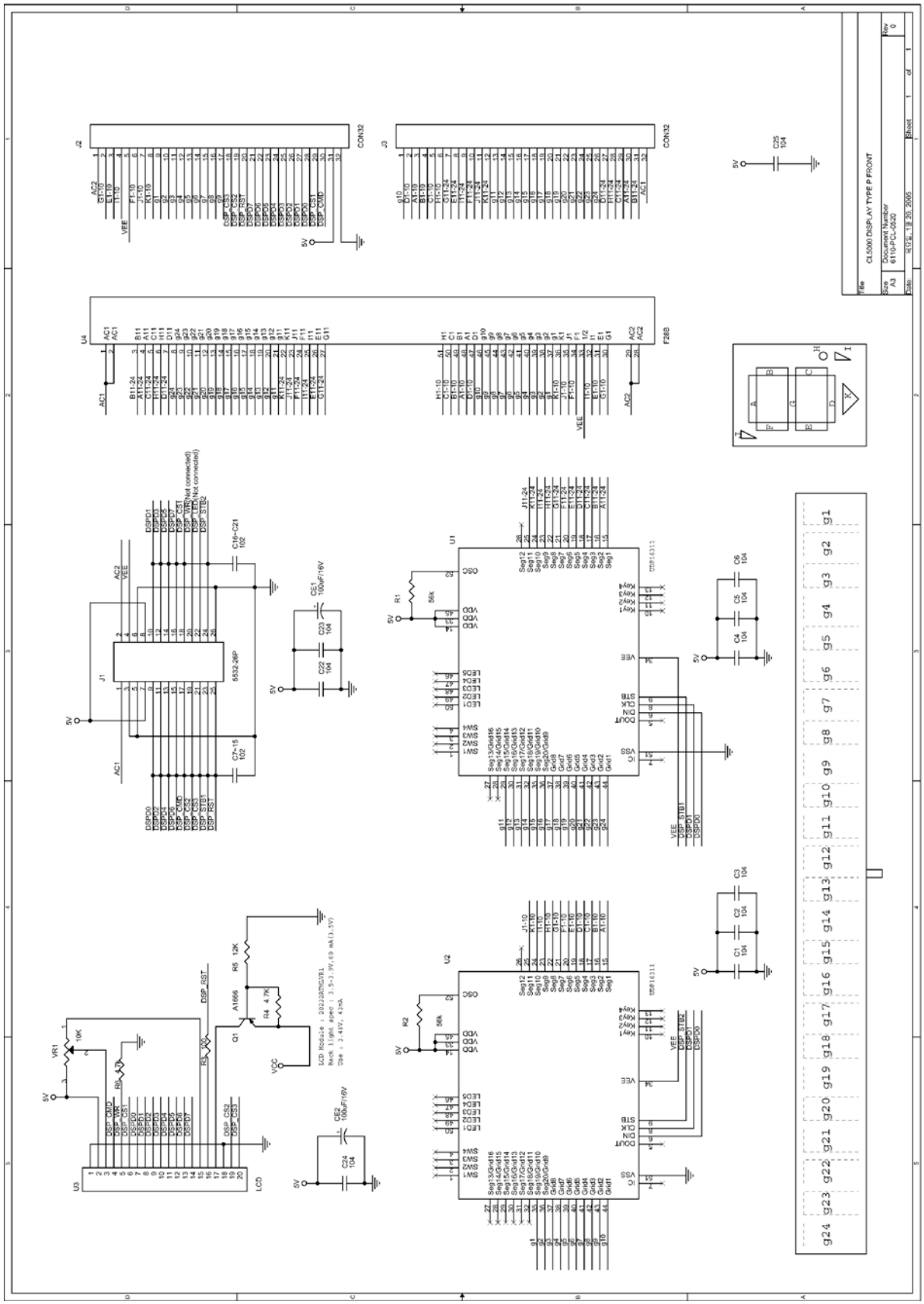

LOADCELL ASS'Y
TO Main Controller
TO Analog Part
TO Digital Part(U1)
CL5000 A/D PCB
Document Number
6120+PCL-6400
LOADCELL(NTP 1 12, 700ohm)
OUT 2~700ohm
NETWORK RESISTOR(10K/1K)
0.47uF/63V J RATE BOX
6.8uF/10V(Tantal)
16uF/10V(Tantal)
KDS181(SMD)
KTA1504Y
uPD4011BG
uPC4072G2
OP177(SMT)A
uPD4066BG
TDK221
L102S
24C02
8PC52
22.1184MHz
CAL SW
ADM_Rx
ADM_Tx

9.6 Display PCB

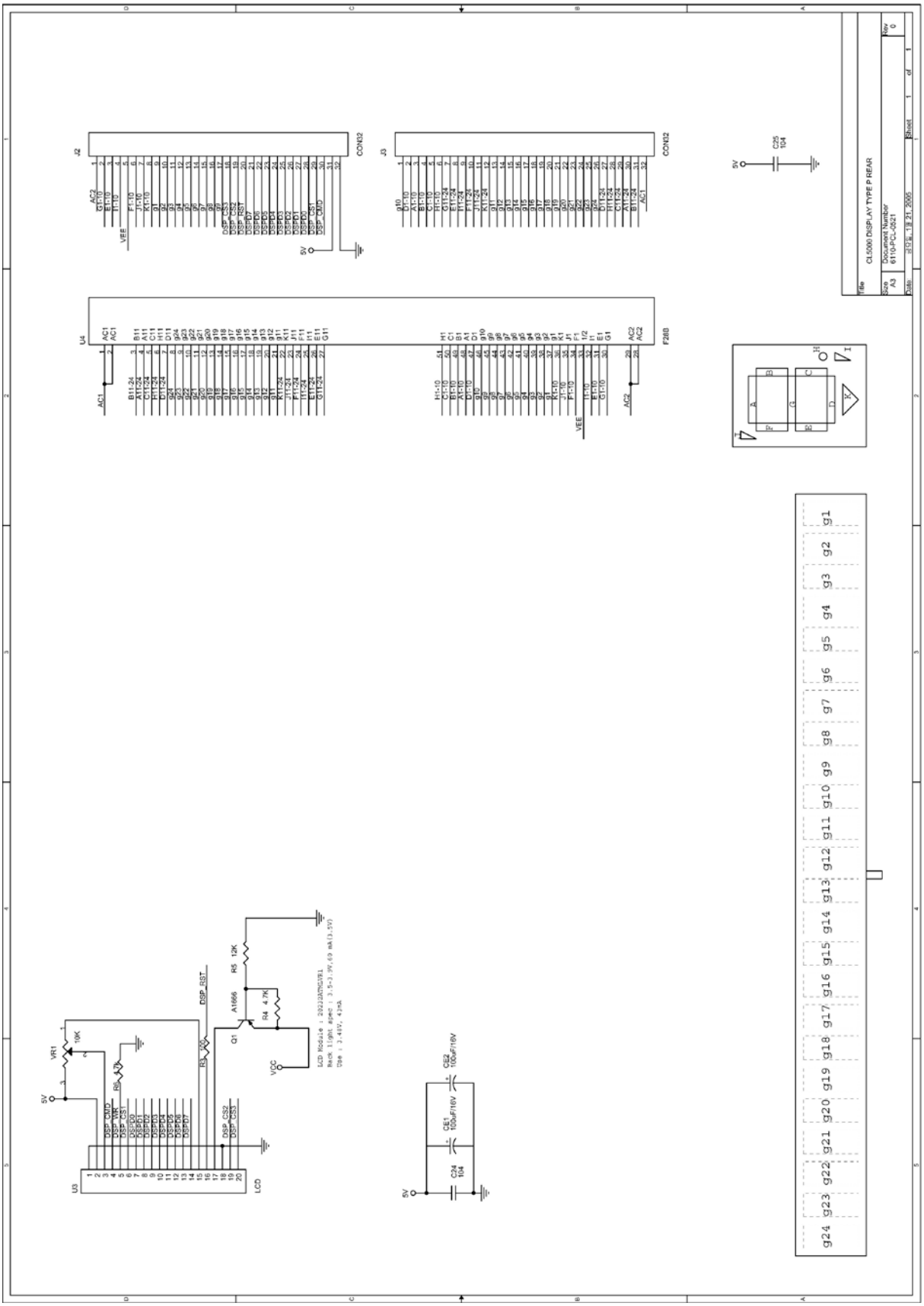
1) Display Type B



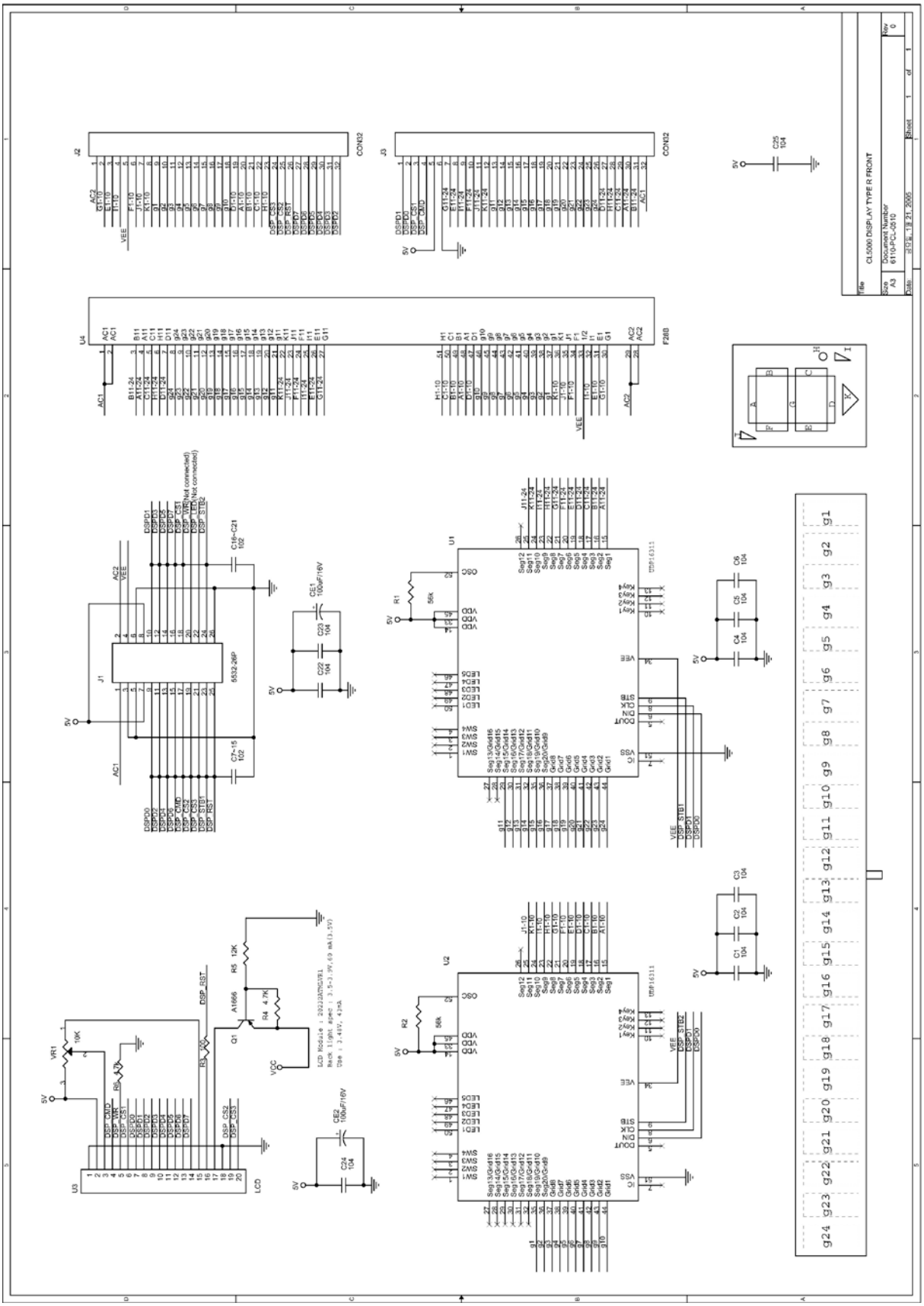
2) Display Type P (Front)



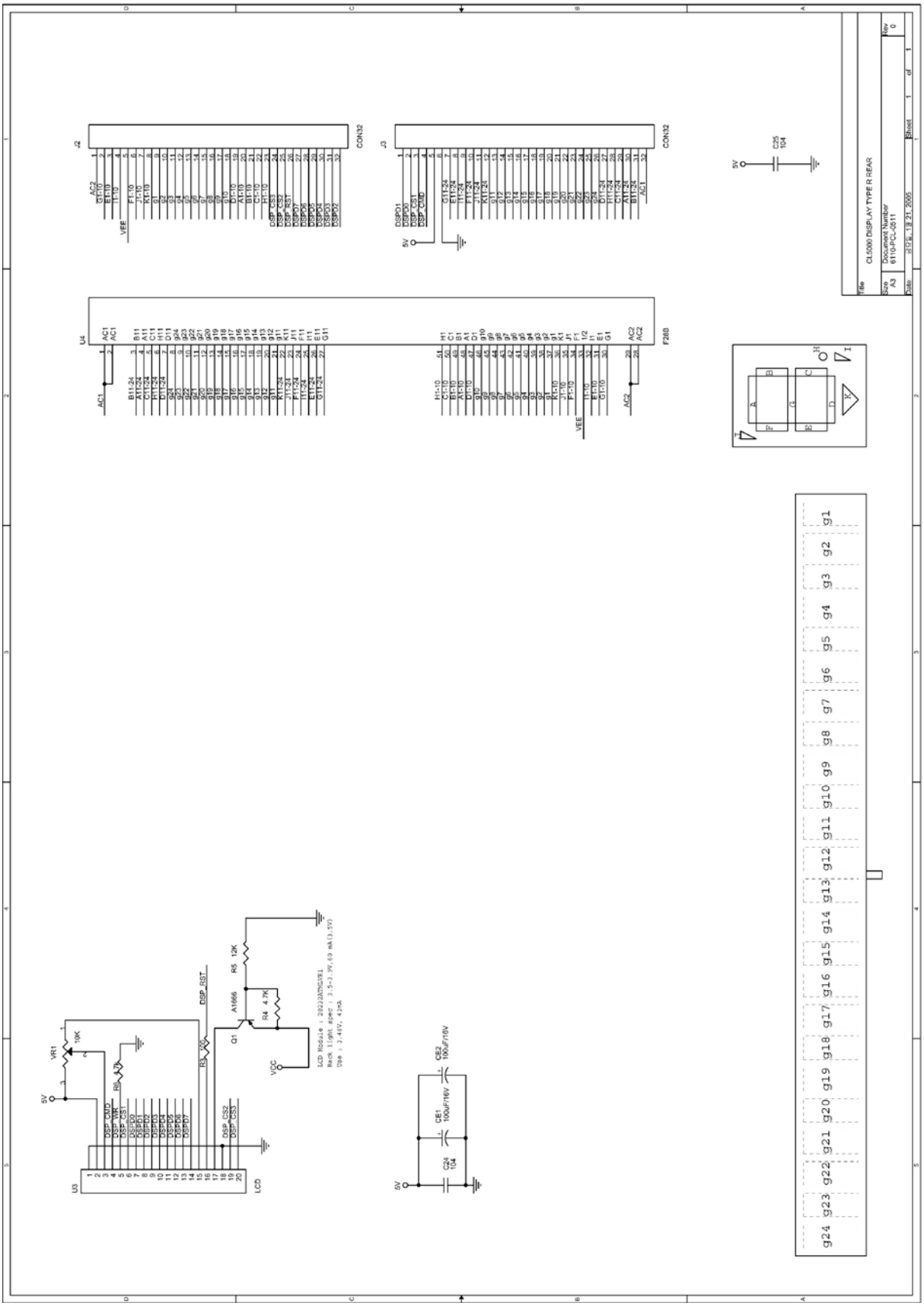
3) Display Type P (Rear)



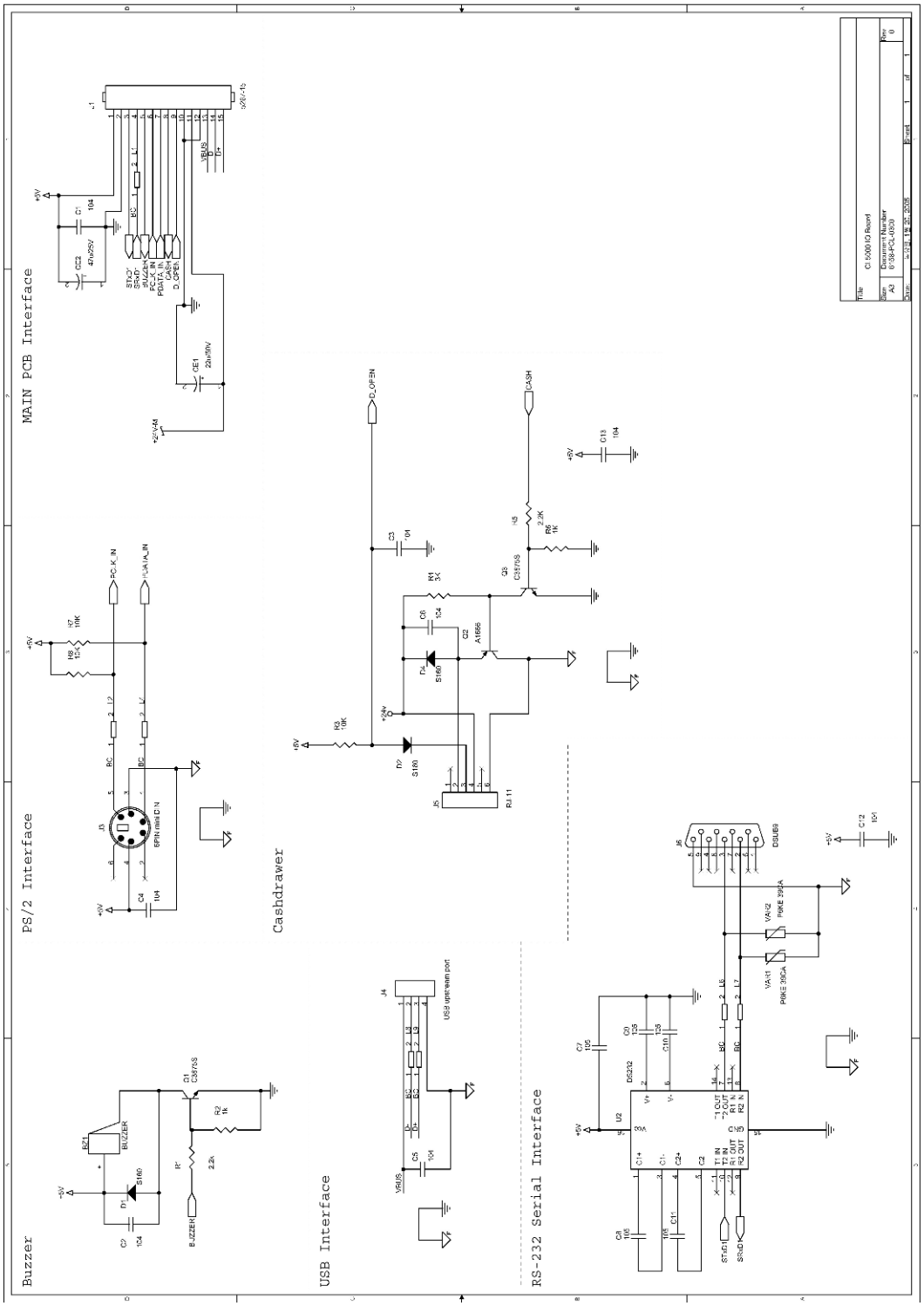
4) Display Type R (Front)



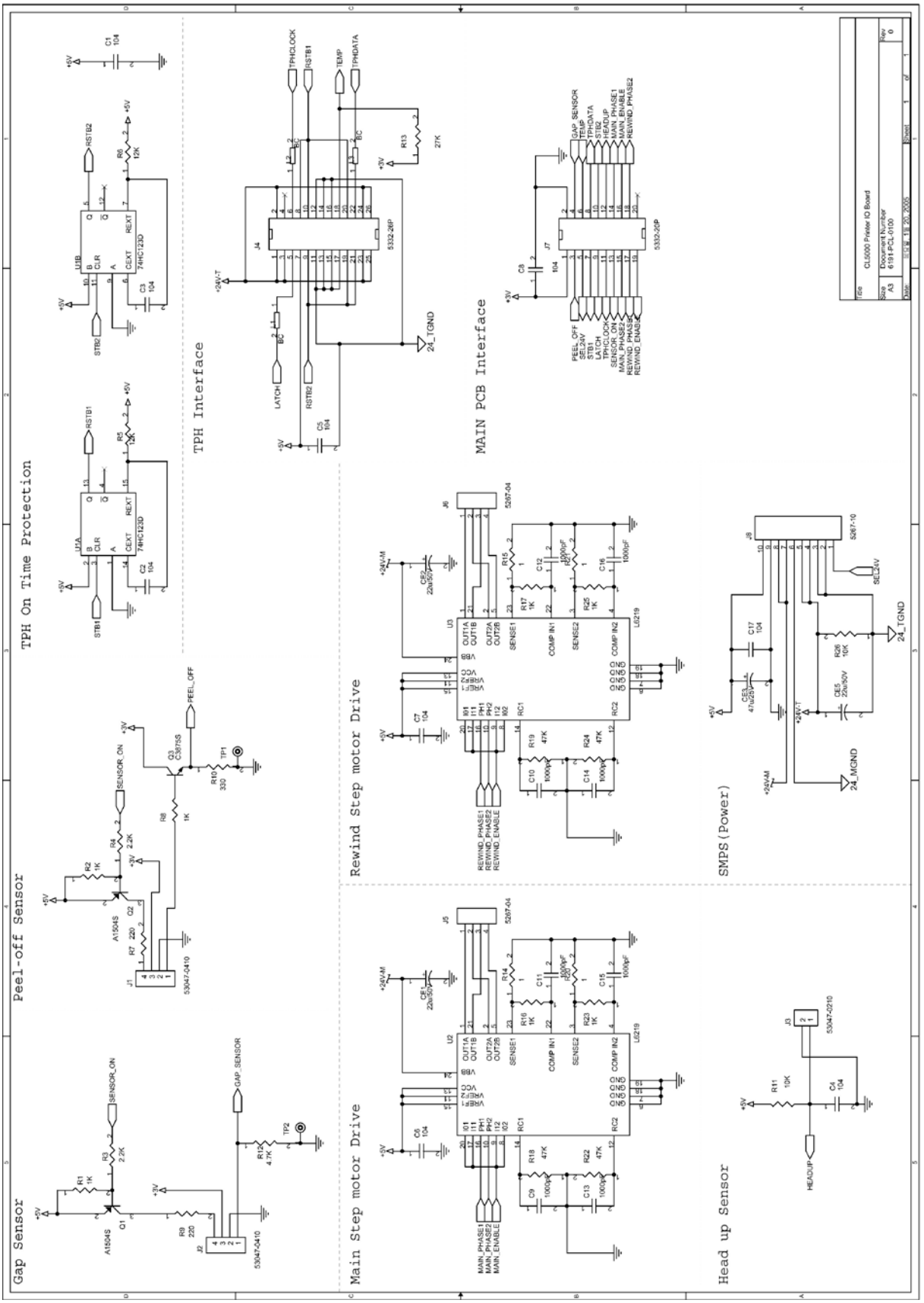
5) Display Type R (Rear)



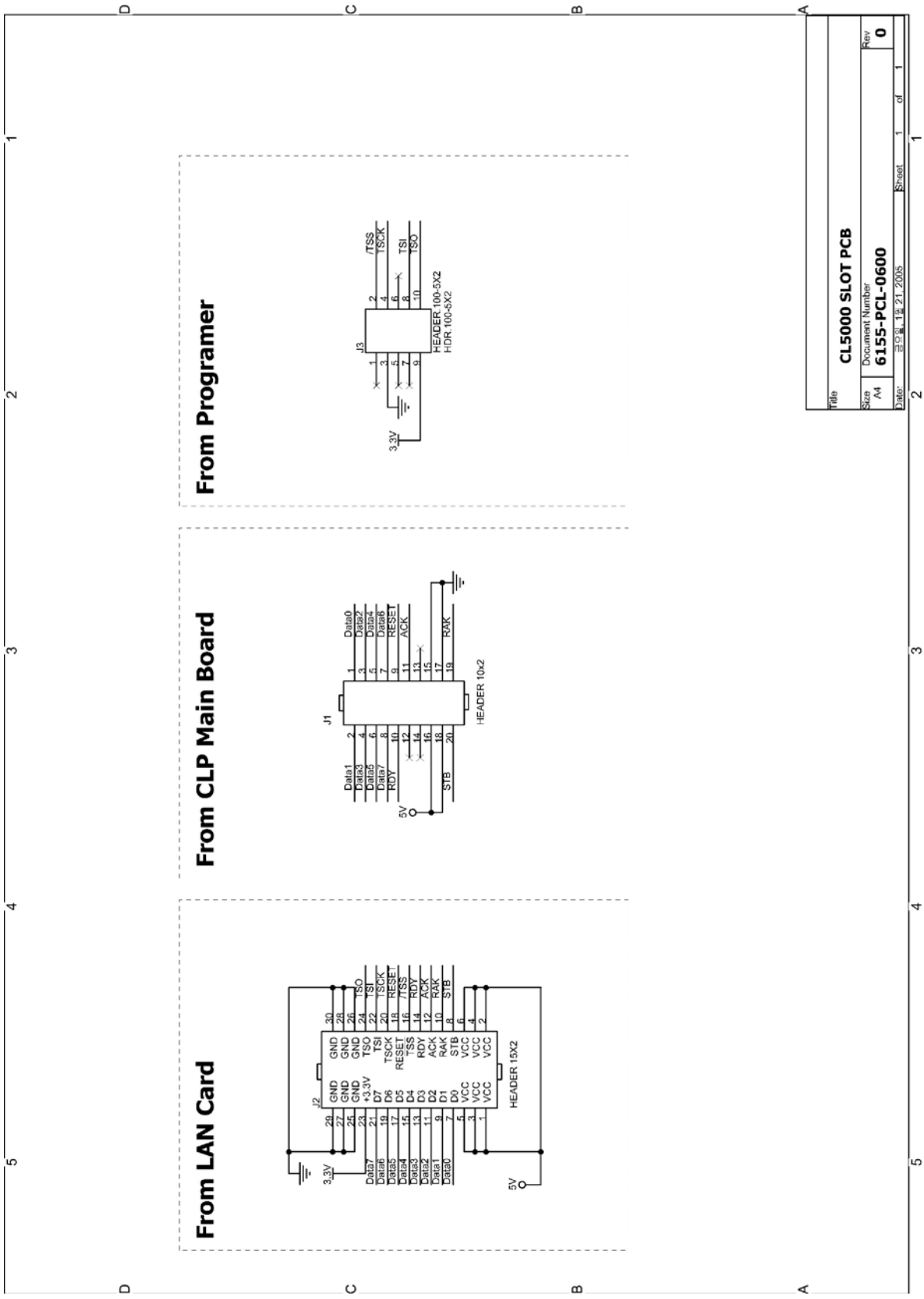
9.7 I / O PCB


MAIN PCB Interface
PS/2 Interface
Cashdrawer
Buzzer
USB Interface
RS-232 Serial Interface
CI 5001O Report
6PIN mini DIN
USB upstream port
DSUB9
BUZZER
S160
C38709
A1695
DS232
FIRE 393A
FIRE 390A
D_OPEN
CASH
PC_K_IN
HUHA_IN

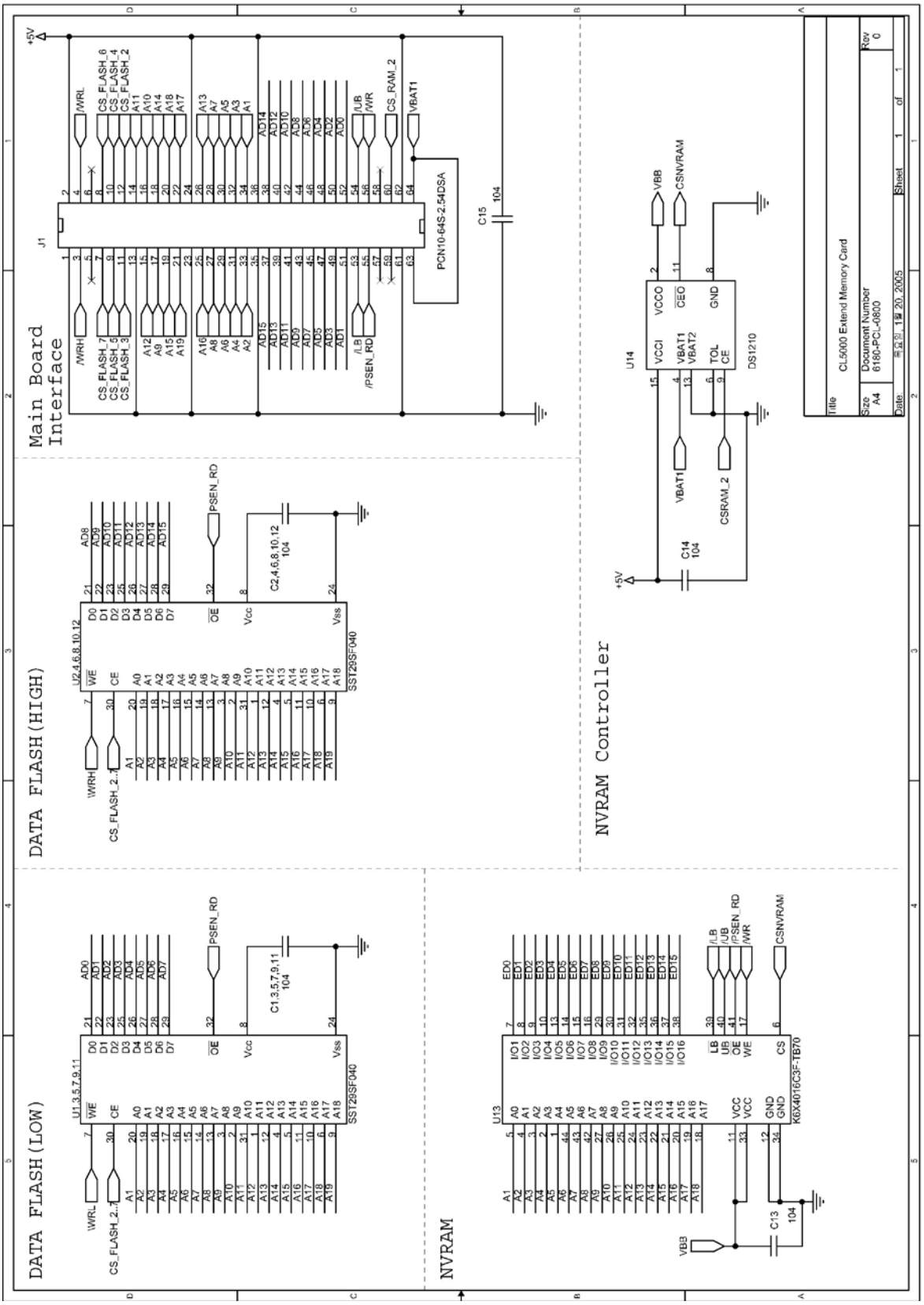
9.8 Printer I/O PCB



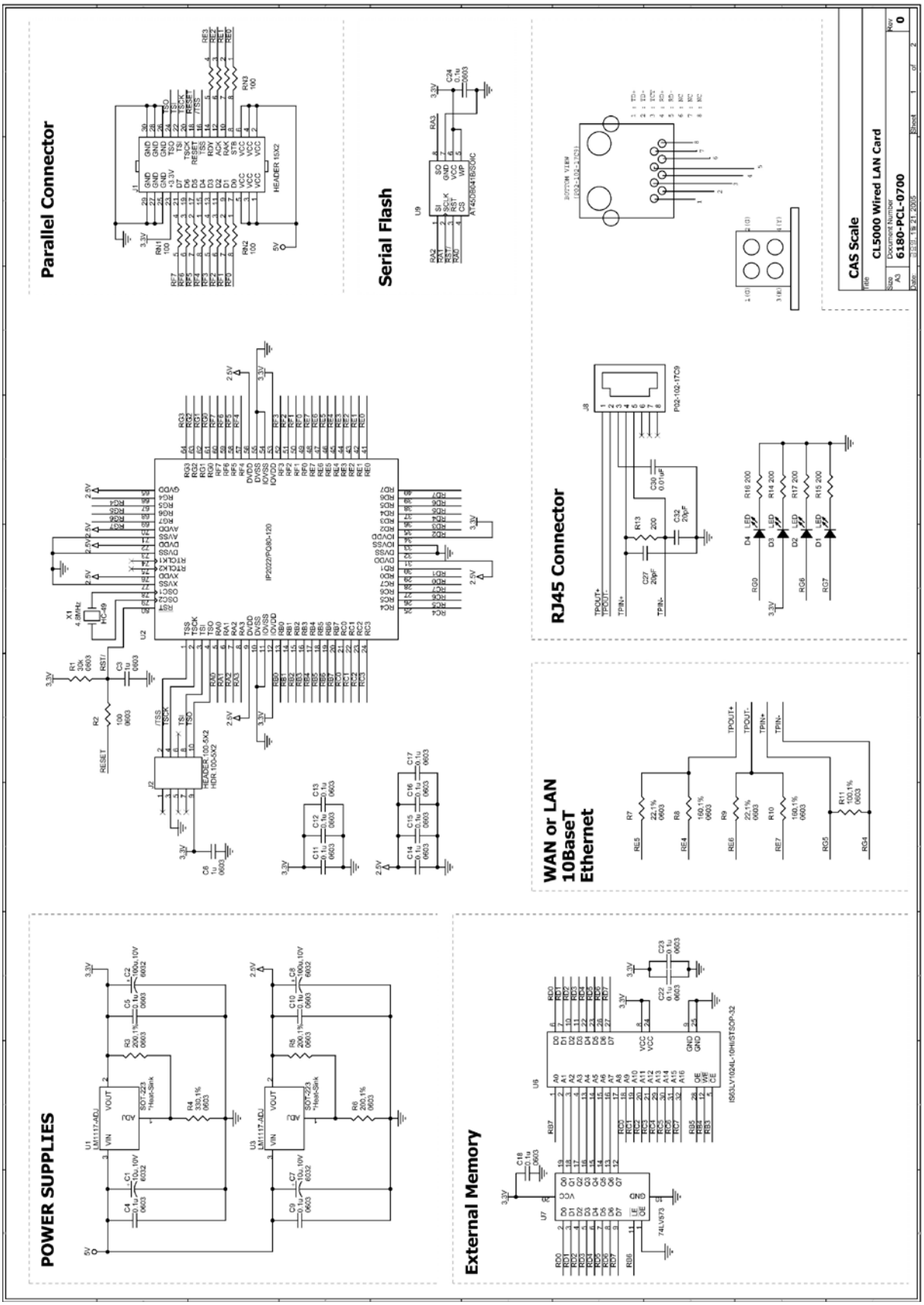
9.9 Slot PCB


From Programer
From CLP Main Board
From LAN Card
CL5000 SLOT PCB
6155-PCL-0600
HEADER 100-5X2
HDR 100-5X2
HEADER 10x2
HEADER 15X2

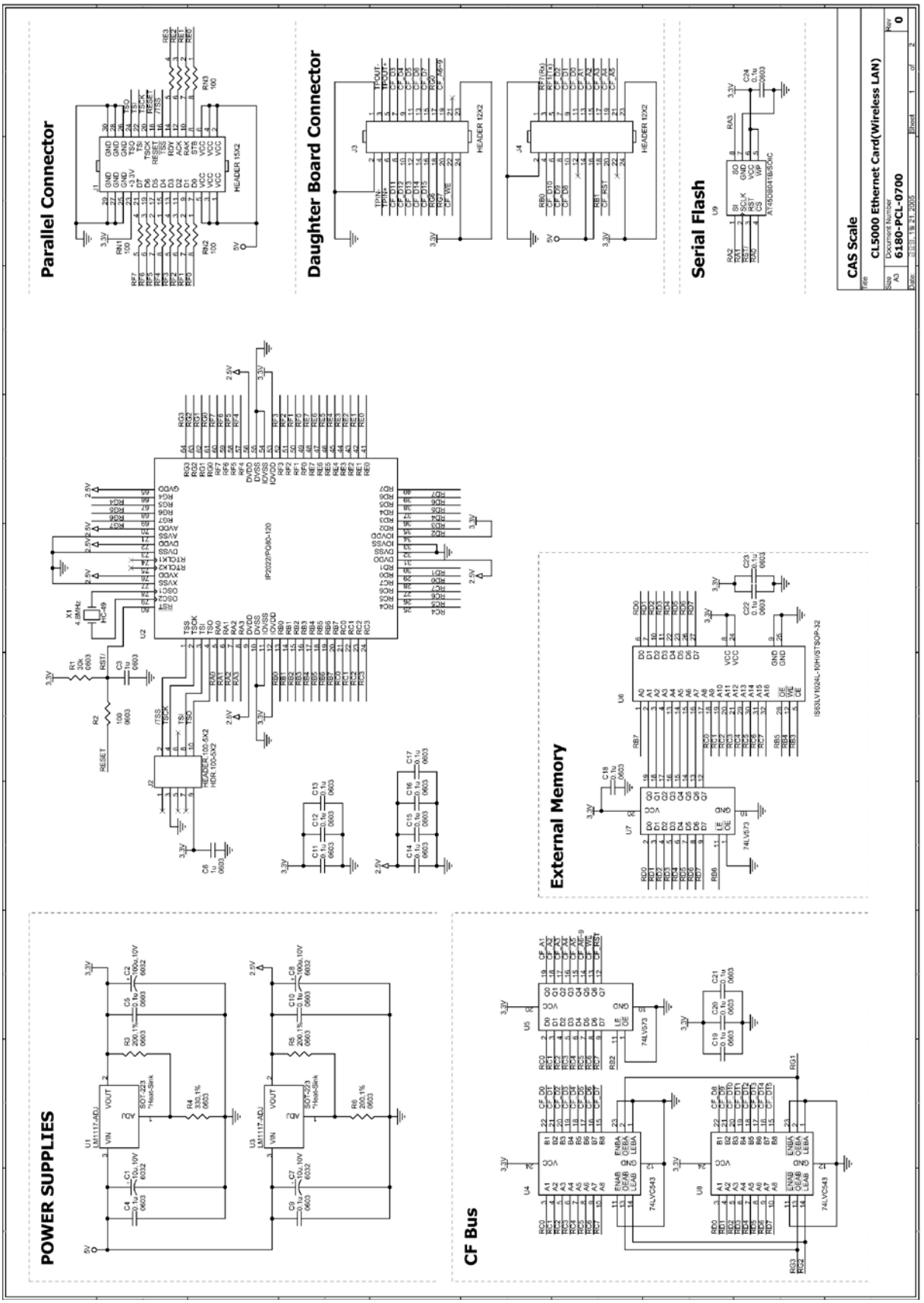
9.10 Expansion Memory PCB



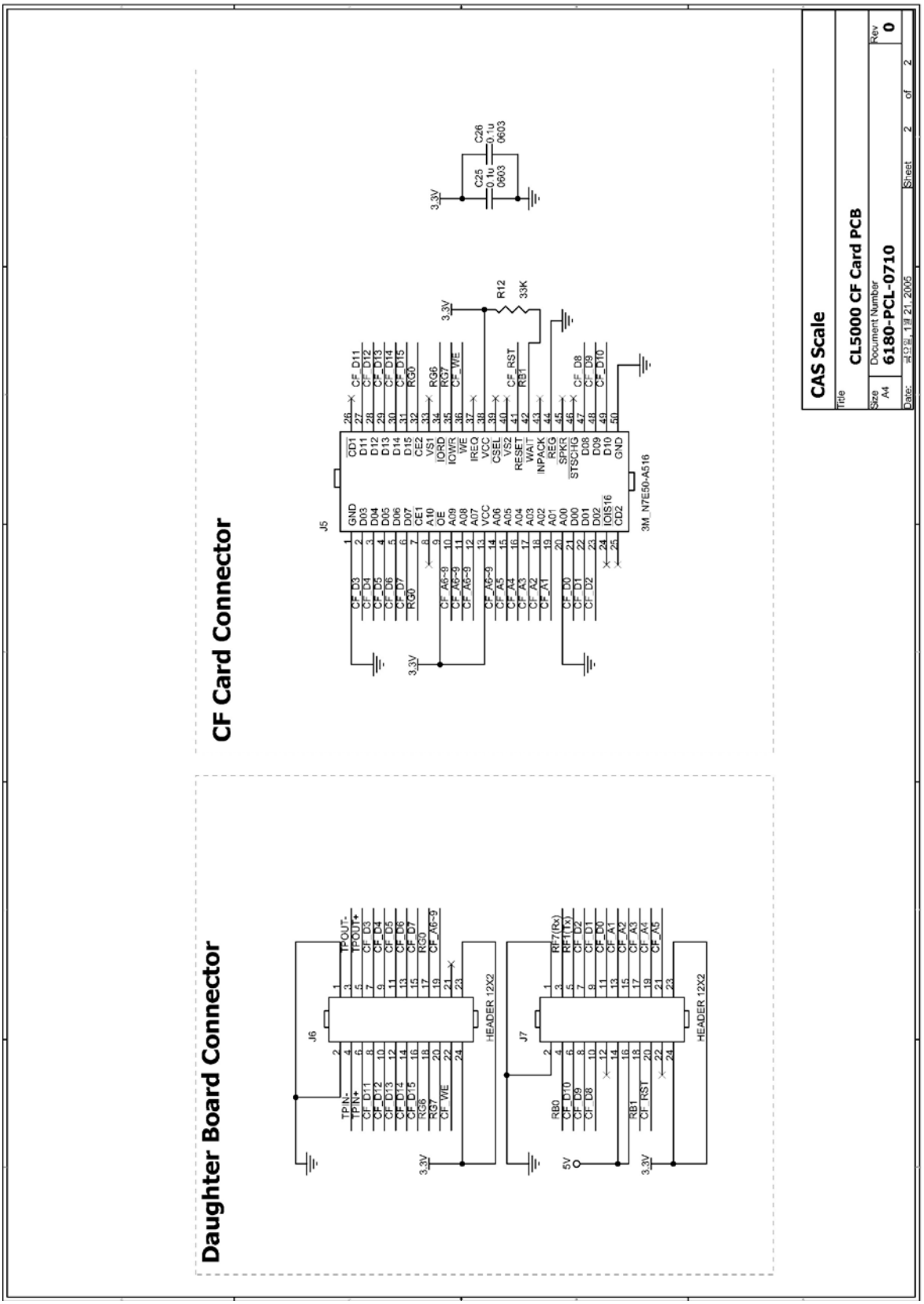
9.11 Wired LAN PCB



9.12 Wireless LAN PCB

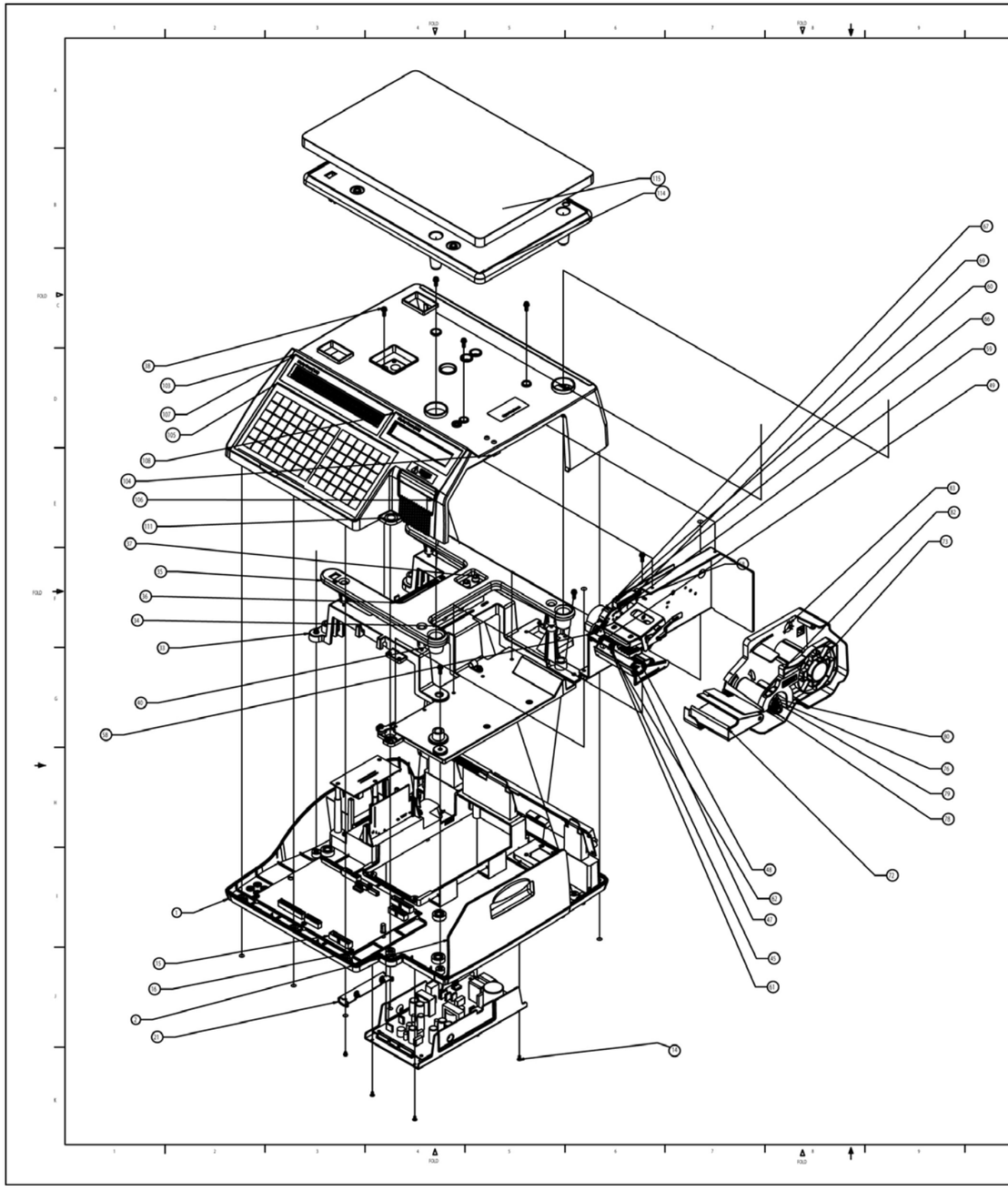


9.13 CF Card PCB



10. Exploded Views

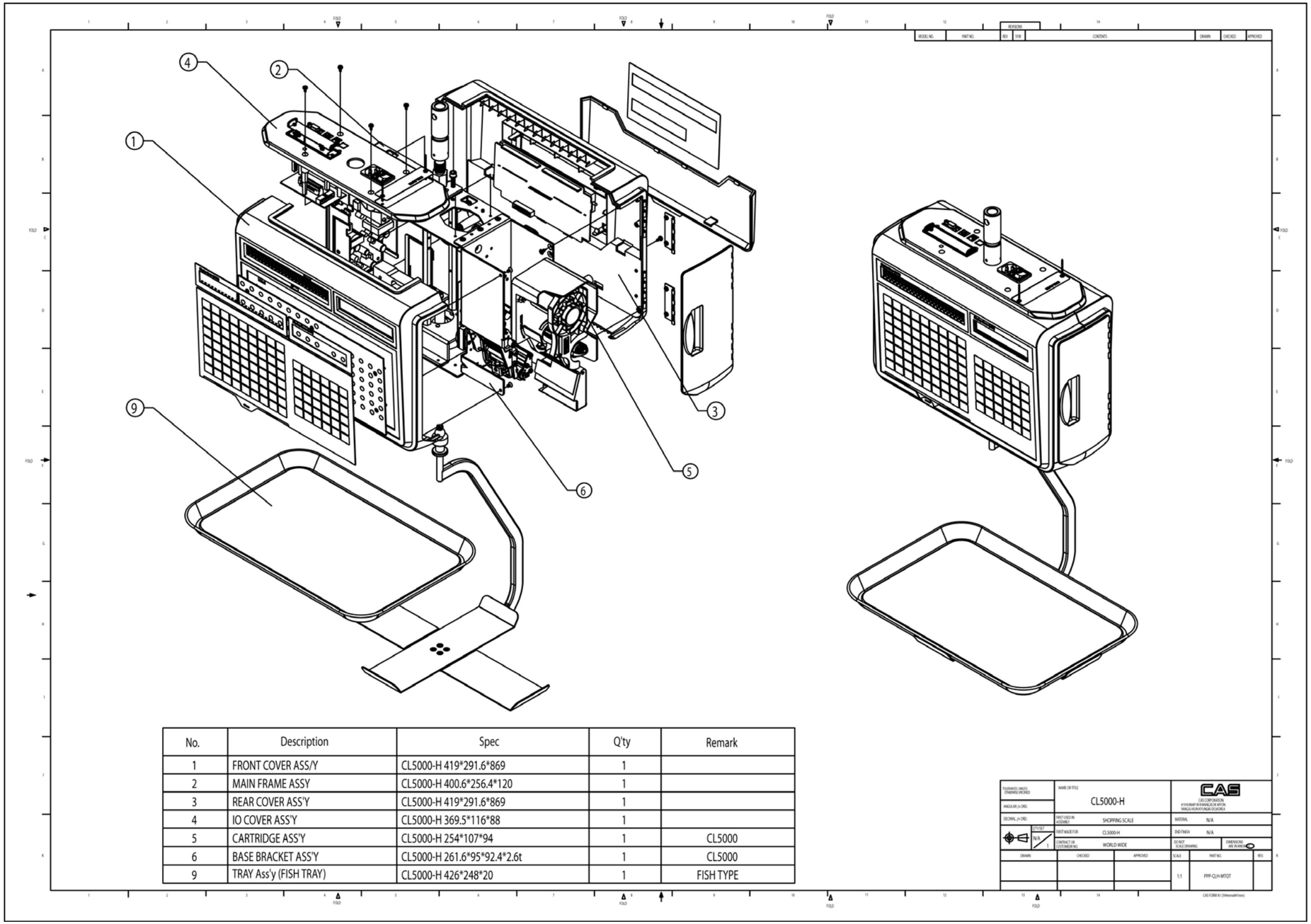
10.1 Scale Assy (B,P,R-type)



No.	Number	Description	Material	Spec	Qty
1	2004-A00-0088	BODY	ABS(*)+I	CL5000 432*408*113	1
2	2004-A00-0089	DOOR PANEL	ABS(*)+I	CL5000 260*120*27	1
3	1070-A00-0001	MAGNET	N/A	37*3*4(LP-0.076)(0.06)	1
14	1501-A00-0306	MACHINE SCREW (FH)	SCM	M3 * 6	5
16	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	13
20	1030-A00-0225	SLOT COVER PLATE	SPC	CL5000 96.4*25.6*26.2	1
21	1502-A00-0304	MACHINE SCREW (PH)	SCM	M3*4	2
32	1100-A00-0068	PLATFORM LOWER	AL DIE CASTING	CL5000 378*349*75	-
33	B043-LT0-006L	LOADCELL	AL202474	TP-TYPE	1
35	1535-M5U-0620	WRENCH BOLT	SUS	M6*20	4
36	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	16
37	1261-A00-0008	LIMIT BOLT	SCM	M5*8.92(NE*4.19Kg)	1
38	1502-A00-0420	MACHINE SCREW (PH)	SCM	M-5 PH M4X20	4
39	7642-500-0005	CABLE CLAMP	ABS	DA-4N	1
40	1552-A00-0400	WASHER-STO'S	SCM	W=4	1
41	7642-500-0060	METAL CLAMP	N/A	6N	1
42	1501-A00-0408	MACHINE SCREW (FH)	SCM	M4*8	2
43	1030-A00-0220	MECHANISM BRACKET	PO	CL5000 267*111*112.6	-
44	1537-A00-0408	TAPTITE SCREW	n/a	APS, M4x8	3
45	2620-A00-0030	SHAFT SILICON RUBBER	N/A	APS $\pm$_AC^{2}	1
46	1150-A00-0010	LOWER FRAME ASS'Y	AL	APS $\pm$_AC^{2}	1
47	1210-A00-0095	SHAFT BUSHING	BS84-2	APS $\pm$_AC^{2}	1
49	1537-A00-0415	TAPTITE SCREW	n/a	APS, M4 x 15	3
50	2011-A00-0014	SPUR GEAR	ACETAL	APS OD_9.3 M_0.5	1
53	1361-M5U-0300	E-Ring	SUS	0*3*0.4*0.6	1
52	1210-A00-0094	SHAFT BEARING	SUS 304	CL5000-0.7*37	1
53	2011-A00-0013	BUSHING BEARING	ACETAL	CL5000-0.28*15.5	1
54	1361-M5U-0400	E-Ring	SUS	0.4*4.5*0.6-SUS	2
55	2011-A00-0015	SPUR GEAR	ACETAL	APS OD_29.4 M_0.5	1
56	6450-TMT-0001	NMB MOTOR ASS'Y	n/a	APS-PM42M-048-XXXX	2
57	1502-A00-0320-0	SCREW-MACHINE(PH)	n/a	M3*20	4
58	1551-A00-0300	WASHER(SPR)	n/a	ϕ3	4
59	PPP-CLP-EPSP	Prelolff Sensor PCB Ass'y	n/a	CLP 49*18*1.5	1
62	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	5
63	2010-A00-0001-(0	GAP SENSOR ASS'Y		CLP	1
64	PPP-CLP-ECTP	PRINTER PCB ASS'Y	n/a	CLP 139*69*1.6	1
70	2004-A00-0090	CARTRIDGE	ABS(*)+I	CL5000 254*107*94	1
71	2004-A00-0091	ROLL PAPER FEED	ABS(A,A)I	CLP 83*48*81	1
72	2011-A00-0012	REWIND GUIDE	ACETAL	CL5000-0.42*71	1
73	2620-A00-0029	SILICONE WASHER	SILICONE RUBBER	CL5000-0.17*1.5	1
74	2004-A00-0092	REWIND PAPER	ABS(*)+I	CLP ϕ33.5*69	1
75	1590-A00-0390	SPRING	SUS304	CL5000 13.5 * 1.0 * 45	1
76	2021-A00-0010	REWIND WASHER	PET	CL5000-0.18*0.50	1
77	1000-A00-0218	STOPPER WASHER	SUS	CL5000-0.18*1.2t	1
78	2010-A00-0028	REWIND PAPER LOCKER	PC	CL5000-0.29*82	1
79	1000-A00-0217	REWIND STOPPER PLATE	SUS	CL5000-0.5*0.5t	1
80	2004-A00-0093	ROLL COVER	ABS(*)+I	CL5000 160*80*10	1
81	1070-A00-0003	MAGNET	N/A	CLP ϕ13.x3	2
93	6410-TPN-0002	APS PRINTER MACHANISM	n/a	APS $\pm$_AC^{2}	1
94	2007-A00-0003	GEAR BOX	NYLON(GLASS 25%)	APS-PM42M-048-XXXX	1
95	1210-A00-0096	PIN	SUS 304	CL5000 ϕ04 * 12.4	2
96	2011-A00-0016	SPUR GEAR	Acetal	CL5000 OD_21.5*M0.5	2
97	2007-A00-0004	GEAR BOX COVER	NYLON(GLASS 25%)	APS-PM42M-048-XXXX	1
98	6450-TMT-0002	NMB MOTOR		APS-PM42M-048-XXXX	1
100	2004-A00-0094	UPPER CASE	ABS(*)+I	CL5000 432*408*134	1
101	1030-A00-0226	DOOR PLATE	SPC	CL5000 20*18*0.8	1
102	2100-A00-0233	MEMBRANE S/W	N/A	CL5000 STANDARD(TOOL)	1
103	1000-A00-0219	PAPER CUTTER	SUS	CL5000 77.5*15.3	1
104	2050-A00-0631	DISPLAY COVER	MITSUBISHI_S23F	CL5000 206.5*43.2*1(TOOL)	2
105	2050-A00-0632	DISPLAY COVER	Transparency PC	CL5000 141.5*43.2*1(TOOL)	2
106	1810-A00-0005	SPEC' PLATE	AL 0.5t	107.6*27.4*0.5t(DB-0)	1
107	1569-A00-0308	RIVET	AL	ϕ3.2*8	2
108	2010-A00-0026	W/L GAGE COVER	LEXAN 0.5t	0*18.5*0.5t	1
111	2004-A00-0095	TRAY	ABS(*)+I	CL5000 397*245 (ABS)	1
112	1000-A00-0216	TRAY	SUS 304	CL5000 382*264* 1t	-
113	9300-SPL-0000	CUSHION-EVA	N/A	40*40*3t(dbDDY-DP)	2
114	PART_NO	BOLT-CONNECTOR	E_{Rg}	M4*17%	1
115	1100-A00-0068	PLATFORM LOWER	AL DIE CASTING	CL5000 378*349*75	1
116	1150-A00-0267	PLATFORM UPPER	AL DIE CASTING	CL5000 345*215*96	1
117	1030-A00-0220	MECHANISM BRACKET	PO	CL5000 267*111*112.6	1
118	N/A	N/A	N/A	N/A	1
119	1000-A00-0216	TRAY	SUS 304	CL5000 382*264* 1t	1

TOLERANCES UNLESS OTHERWISE SPECIFIED	NAME OR TITLE	CL5000	CAS
ANGULAR, in DEG.			CAS CORP.,STARTUP
DECIMAL, in DEG.	FIRST USED IN ASSEMBLY	SHOPPING SCALE	MATERIAL
1ST/3RD	FIRST MADE FOR	CL5000	END FINISH
N/A / 1	CONTRACT OR CUSTOMER NO.	WORLD WIDE	DO NOT SCALE DRAWING / DIMENSIONS ARE IN MM
DRAWN	CHECKED	APPROVED	SCALE: 1:2.5 / PART NO.: PPP-CLP-MTOT / REV.: 0

10.2 Scale Assy (H-type)



No.	Description	Spec	Q'ty	Remark
1	FRONT COVER ASS/Y	CL5000-H 419*291.6*869	1	
2	MAIN FRAME ASSY	CL5000-H 400.6*256.4*120	1	
3	REAR COVER ASS'Y	CL5000-H 419*291.6*869	1	
4	IO COVER ASS'Y	CL5000-H 369.5*116*88	1	
5	CARTRIDGE ASS'Y	CL5000-H 254*107*94	1	CL5000
6	BASE BRACKET ASS'Y	CL5000-H 261.6*95*92.4*2.6t	1	CL5000
9	TRAY Ass'y (FISH TRAY)	CL5000-H 426*248*20	1	FISH TYPE

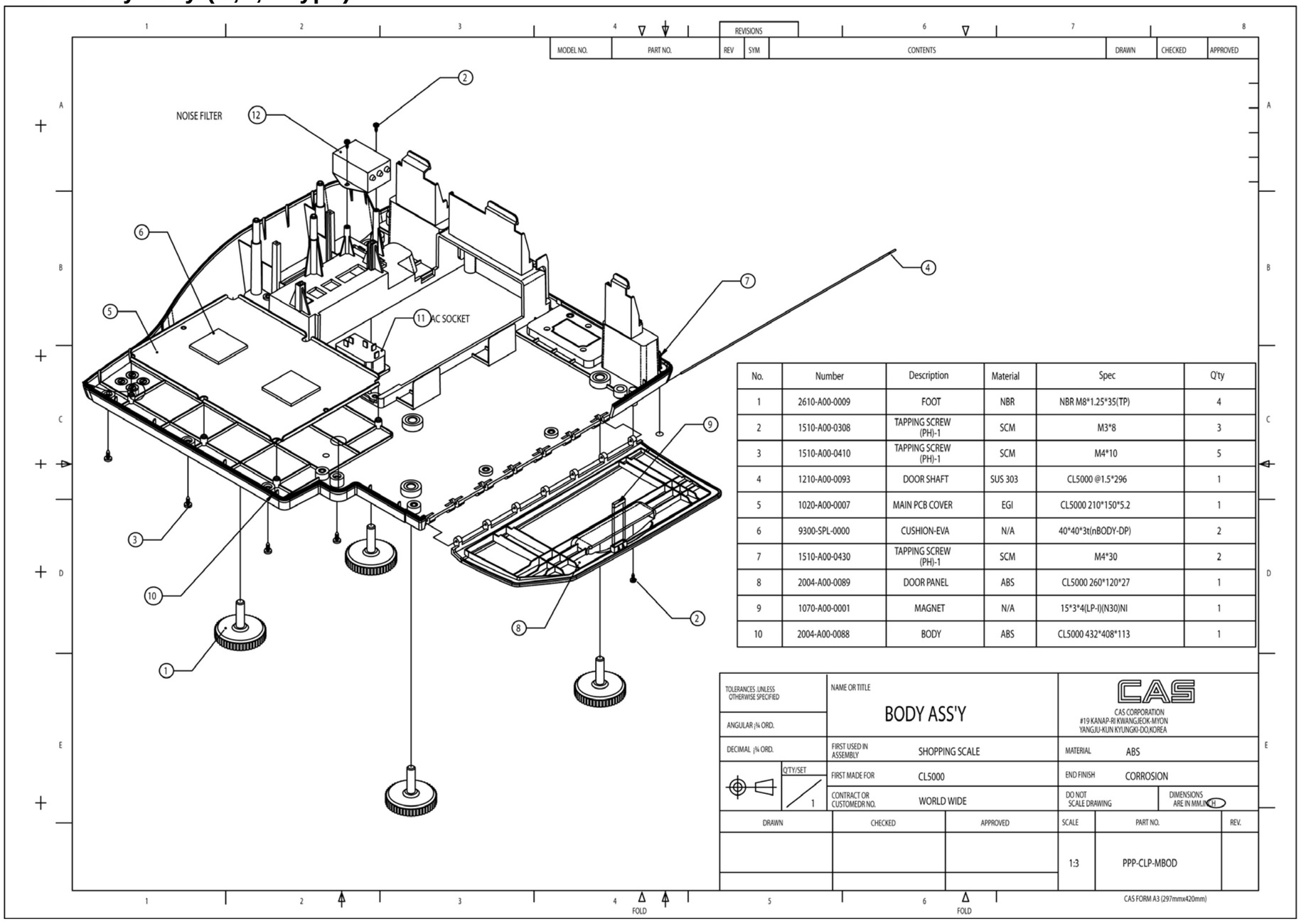
CL5000-H

SHOPPING SCALE

WORLD WIDE

P99-QLH-MTOT

10.3 Body Assy (B,P,R-type)



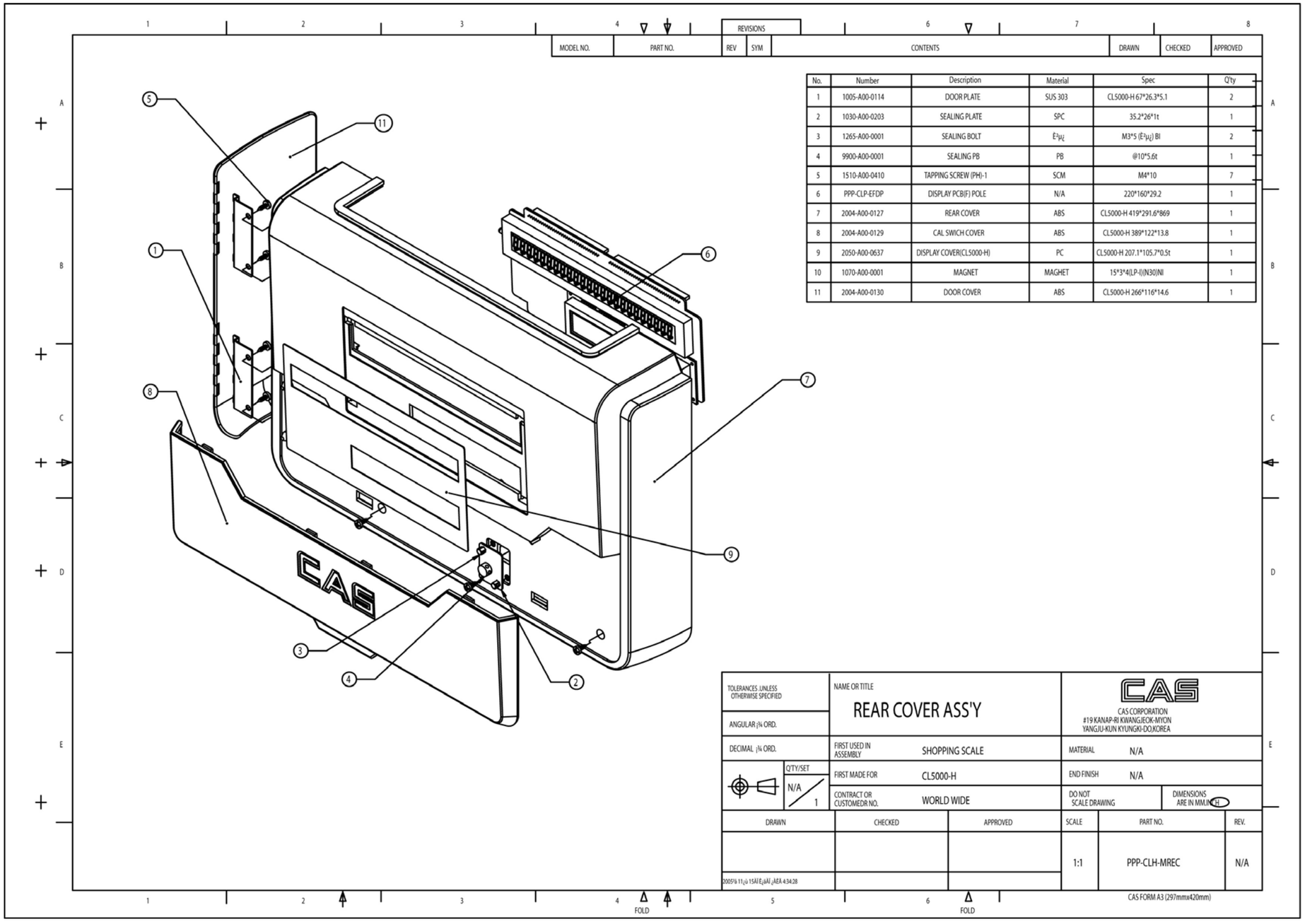
No.	Number	Description	Material	Spec	Q'ty
1	2610-A00-0009	FOOT	NBR	NBR M8*1.25*35(TP)	4
2	1510-A00-0308	TAPPING SCREW (PH)-1	SCM	M3*8	3
3	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	5
4	1210-A00-0093	DOOR SHAFT	SUS 303	CL5000 @1.5*296	1
5	1020-A00-0007	MAIN PCB COVER	EGI	CL5000 210*150*5.2	1
6	9300-SPL-0000	CUSHION-EVA	N/A	40*40*3t(nBODY-DP)	2
7	1510-A00-0430	TAPPING SCREW (PH)-1	SCM	M4*30	2
8	2004-A00-0089	DOOR PANEL	ABS	CL5000 260*120*27	1
9	1070-A00-0001	MAGNET	N/A	15*3*4(LP-I)(N30)NI	1
10	2004-A00-0088	BODY	ABS	CL5000 432*408*113	1

TOLERANCES UNLESS OTHERWISE SPECIFIED	NAME OR TITLE: BODY ASS'Y	CAS CORPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-KUN KYUNGKI-DO,KOREA	
ANGULAR ¡¾ ORD.			
DECIMAL ¡¾ ORD.	FIRST USED IN ASSEMBLY: SHOPPING SCALE	MATERIAL: ABS	
Q'TY/SET: 1	FIRST MADE FOR: CL5000	END FINISH: CORROSION	
	CONTRACT OR CUSTOMEDR NO.: WORLD WIDE	DO NOT SCALE DRAWING	DIMENSIONS ARE IN MM,INCH

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:3	PPP-CLP-MBOD	

CAS FORM A3 (297mmx420mm)

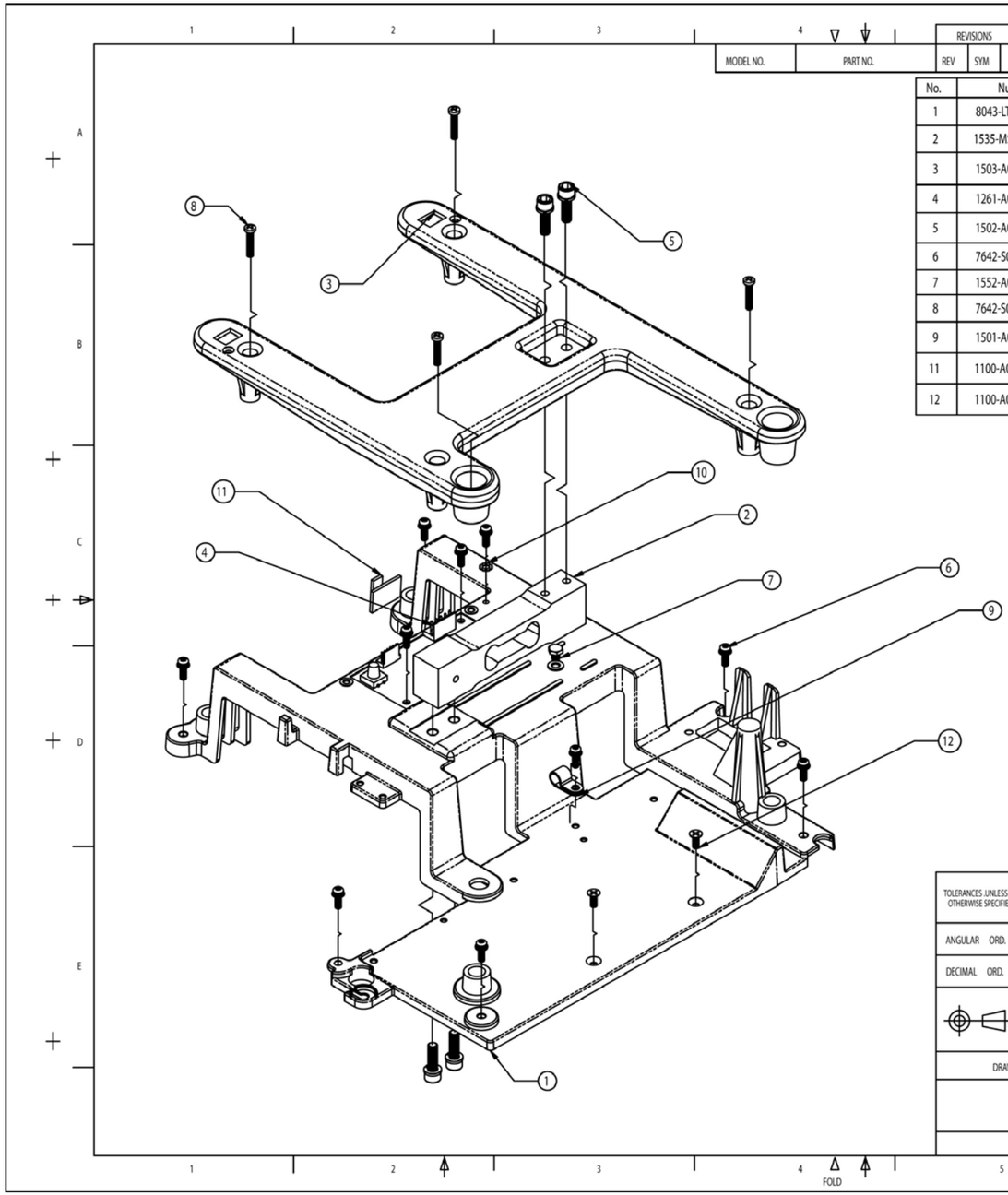
10.4 Body Assy (H-type)



No.	Number	Description	Materlal	Spec	Q'ty
1	1005-A00-0114	DOOR PLATE	SUS 303	CL5000-H 67*26.3*5.1	2
2	1030-A00-0203	SEALING PLATE	SPC	35.2*26*1t	1
3	1265-A00-0001	SEALING BOLT	Ê²µ¿	M3*5 (Ê²µ¿) BI	2
4	9900-A00-0001	SEALING PB	PB	@10*5.6t	1
5	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	7
6	PPP-CLP-EFDP	DISPLAY PCB(F) POLE	N/A	220*160*29.2	1
7	2004-A00-0127	REAR COVER	ABS	CL5000-H 419*291.6*869	1
8	2004-A00-0129	CAL SWICH COVER	ABS	CL5000-H 389*122*13.8	1
9	2050-A00-0637	DISPLAY COVER(CL5000-H)	PC	CL5000-H 207.1*105.7*0.5t	1
10	1070-A00-0001	MAGNET	MAGHET	15*3*4(LP-I)(N30)NI	1
11	2004-A00-0130	DOOR COVER	ABS	CL5000-H 266*116*14.6	1

TOLERANCES ,UNLESS OTHERWISE SPECIFIED
ANGULAR ¡¾ ORD.
DECIMAL ¡¾ ORD.
Q'TY/SET N/A 1
NAME OR TITLE: REAR COVER ASS'Y
FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000-H
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE
CAS CORPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-KUN KYUNGKI-DO,KOREA
MATERIAL: N/A
END FINISH: N/A
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM,IN
DRAWN | CHECKED | APPROVED
SCALE: 1:1
PART NO.: PPP-CLH-MREC
REV.: N/A
2005¼ 11¿ù 15ÀÏ E¡ÀÀÌ ¿ÀÈÄ 4:34:28
CAS FORM A3 (297mmx420mm)
FOLD

10.5 Platform (B,P,R-type)



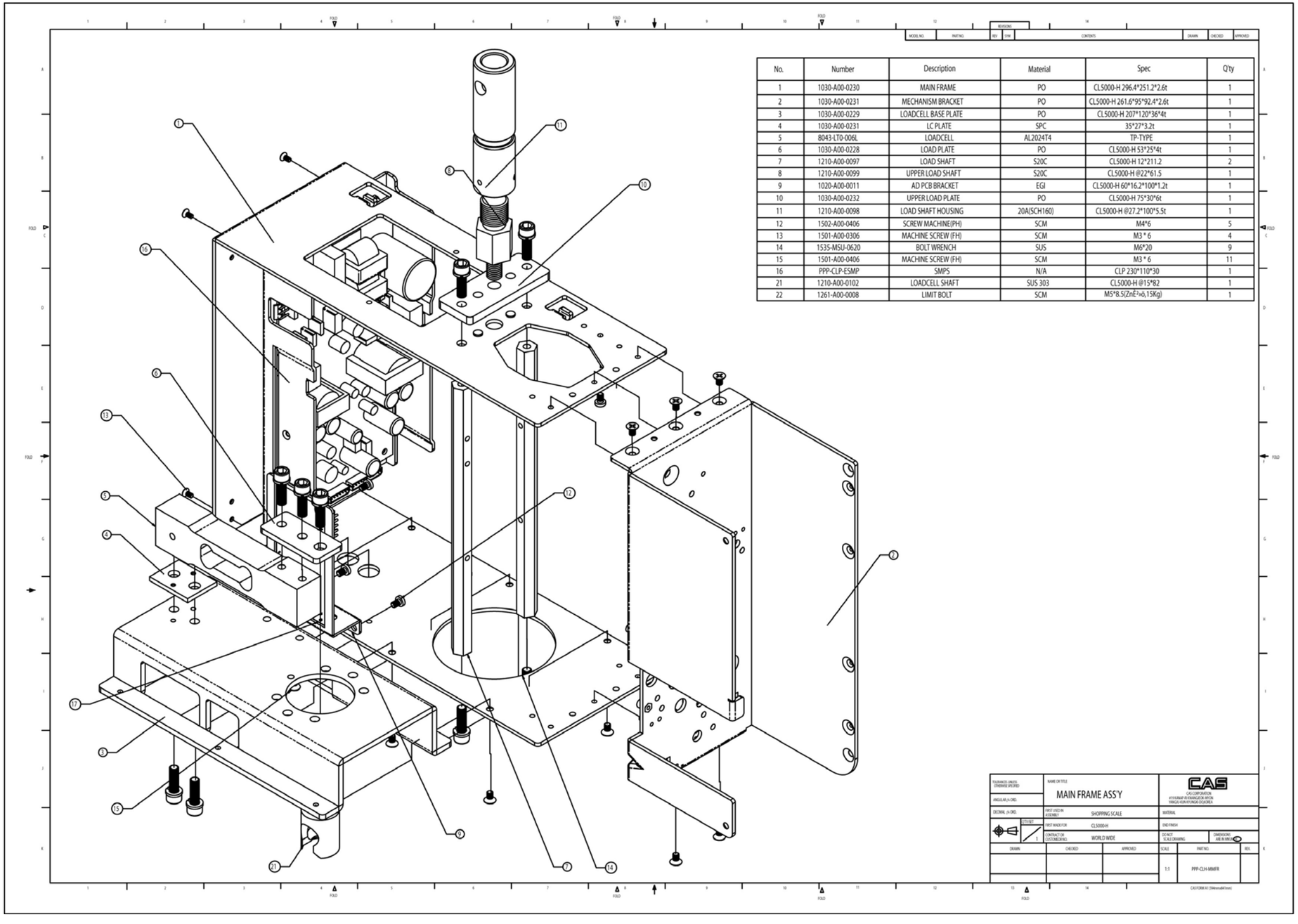
MODEL NO.	PART NO.	REVISIONS REV	SYM	CONTENTS	DRAWN	CHECKED	APPROVED

No.	Number	Description	Material	Spec	Q'ty
1	8043-LT0-006L	LOADCELL	AL2024T4	TP-TYPE	1
2	1535-MSU-0620	WRENCH BOLT	SUS	M6*20	4
3	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	10
4	1261-A00-0008	LIMIT BOLT	SCM	M5*8.5(ZnÈ²»ö,15Kg)	1
5	1502-A00-0420	MACHINE SCREW (PH)	SCM	M-S PH M4X20	4
6	7642-S00-0005	CABLE CLAMP	ABS	DA-4N	1
7	1552-A00-0400	WASHER (OTO)	SCM	¥ö4	1
8	7642-S00-0060	METAL CLAMP	N/A	6N	1
9	1501-A00-0408	MACHINE SCREW (FH)	SCM	M4*8	2
11	1100-A00-0068	PLATFORM LOWER	AL DIE CASTING	CL5000 378*349*75	1
12	1100-A00-0067	PLATFORM UPPER	AL DIE CASTING	CL5000 345*215*36	1

TOLERANCES ,UNLESS OTHERWISE SPECIFIED	NAME OR TITLE PLATFORM ASS'Y		CAS CORPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-KUN KYUNGKI-DO,KOREA		
ANGULAR ORD.					
DECIMAL ORD.	FIRST USED IN ASSEMBLY: SHOPPING SCALE		MATERIAL: AL DIE CASTING		
Q'TY/SET 1	FIRST MADE FOR: CL5000		END FINISH		
	CONTRACT OR CUSTOMEDR NO.: WORLD WIDE		DO NOT SCALE DRAWING	DIMENSIONS ARE IN MM.IN(H)	
DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:2	PPP-CLP-MPLA	0

CAS FORM A3 (297mmx420mm)

10.6 Main Frame (H-type)



No.	Number	Description	Material	Spec	Q'ty
1	1030-A00-0230	MAIN FRAME	PO	CL5000-H 296.4*251.2*2.6t	1
2	1030-A00-0231	MECHANISM BRACKET	PO	CL5000-H 261.6*95*92.4*2.6t	1
3	1030-A00-0229	LOADCELL BASE PLATE	PO	CL5000-H 207*120*36*4t	1
4	1030-A00-0231	LC PLATE	SPC	35*27*3.2t	1
5	8043-LT0-006L	LOADCELL	AL2024T4	TP-TYPE	1
6	1030-A00-0228	LOAD PLATE	PO	CL5000-H 53*25*4t	1
7	1210-A00-0097	LOAD SHAFT	S20C	CL5000-H 12*211.2	2
8	1210-A00-0099	UPPER LOAD SHAFT	S20C	CL5000-H @22*61.5	1
9	1020-A00-0011	AD PCB BRACKET	EGI	CL5000-H 60*16.2*100*1.2t	1
10	1030-A00-0232	UPPER LOAD PLATE	PO	CL5000-H 75*30*6t	1
11	1210-A00-0098	LOAD SHAFT HOUSING	20A(SCH160)	CL5000-H @27.2*100*5.5t	1
12	1502-A00-0406	SCREW MACHINE(PH)	SCM	M4*6	5
13	1501-A00-0306	MACHINE SCREW (FH)	SCM	M3 * 6	4
14	153S-MSU-0620	BOLT WRENCH	SUS	M6*20	9
15	1501-A00-0406	MACHINE SCREW (FH)	SCM	M3 * 6	11
16	PPP-CLP-ESMP	SMPS	N/A	CLP 230*110*30	1
21	1210-A00-0102	LOADCELL SHAFT	SUS 303	CL5000-H @15*82	1
22	1261-A00-0008	LIMIT BOLT	SCM	M5*8.5(ZnE³ₐ0,15Kg)	1

MAIN FRAME ASS'Y

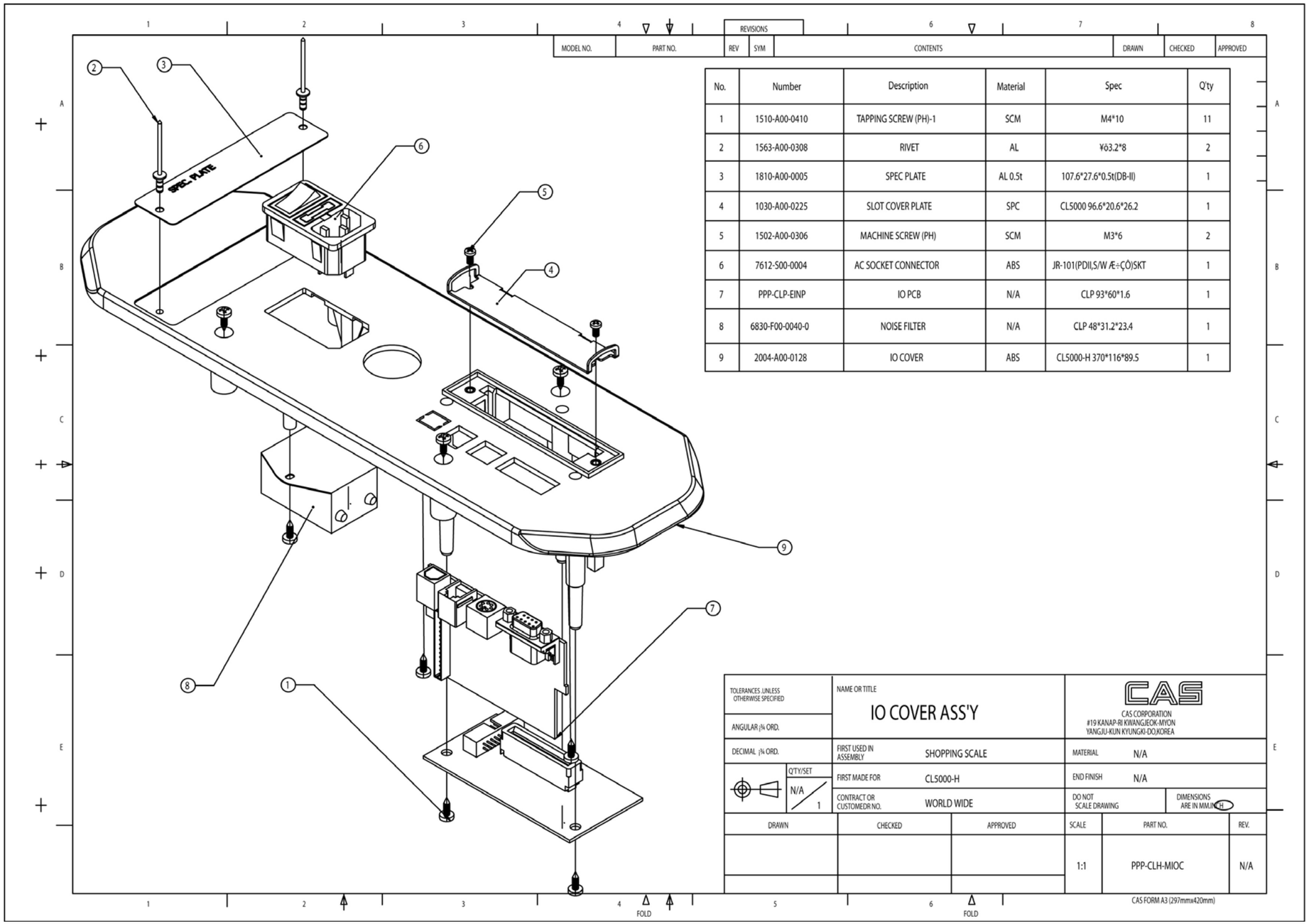
SHOPPING SCALE

CL5000-H

WORLD WIDE

PPP-CLH-MMFR

10.7 I.O cover (H-Type)



No.	Number	Description	Material	Spec	Q'ty
1	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	11
2	1563-A00-0308	RIVET	AL	¥ö3.2*8	2
3	1810-A00-0005	SPEC PLATE	AL 0.5t	107.6*27.6*0.5t(DB-II)	1
4	1030-A00-0225	SLOT COVER PLATE	SPC	CL5000 96.6*20.6*26.2	1
5	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	2
6	7612-S00-0004	AC SOCKET CONNECTOR	ABS	JR-101(PDII,S/W Æ÷ÇÒ)SKT	1
7	PPP-CLP-EINP	IO PCB	N/A	CLP 93*60*1.6	1
8	6830-F00-0040-0	NOISE FILTER	N/A	CLP 48*31.2*23.4	1
9	2004-A00-0128	IO COVER	ABS	CL5000-H 370*116*89.5	1

MODEL NO. | PART NO. | REVISIONS: REV, SYM | CONTENTS | DRAWN | CHECKED | APPROVED

TOLERANCES :UNLESS OTHERWISE SPECIFIED
ANGULAR :¦¾ ORD.
DECIMAL :¦¾ ORD.
QTY/SET: N/A / 1

NAME OR TITLE: IO COVER ASS'Y

FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000-H
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE

CAS CORPORATION
#19 KANAP-RI KWANGJEOK-MYON
YANGJU-KUN KYUNGKI-DO,KOREA

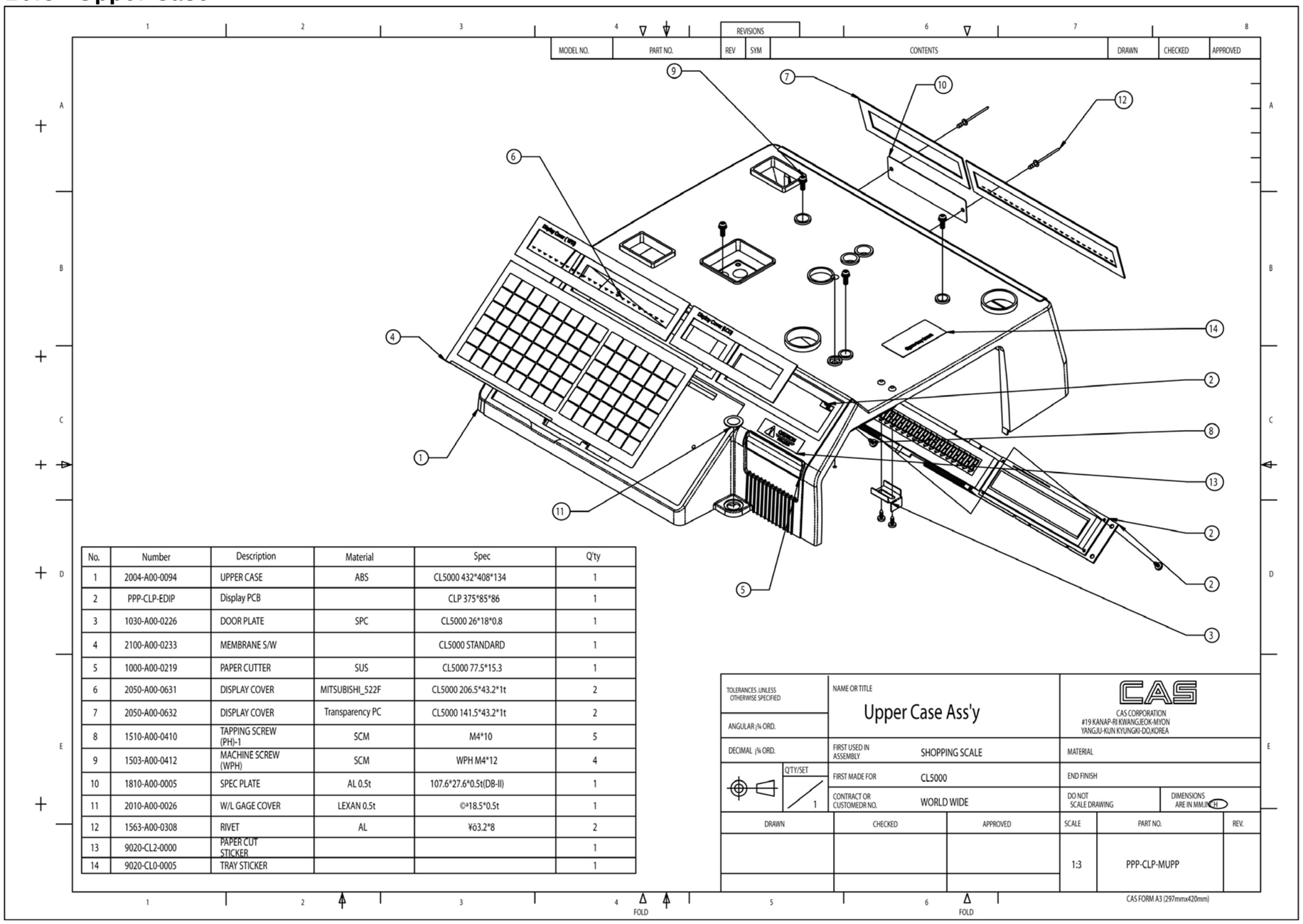
MATERIAL: N/A
END FINISH: N/A
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM,INCH

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1	PPP-CLH-MIOC	N/A

CAS FORM A3 (297mmx420mm)

FOLD FOLD

10.8 Upper Case

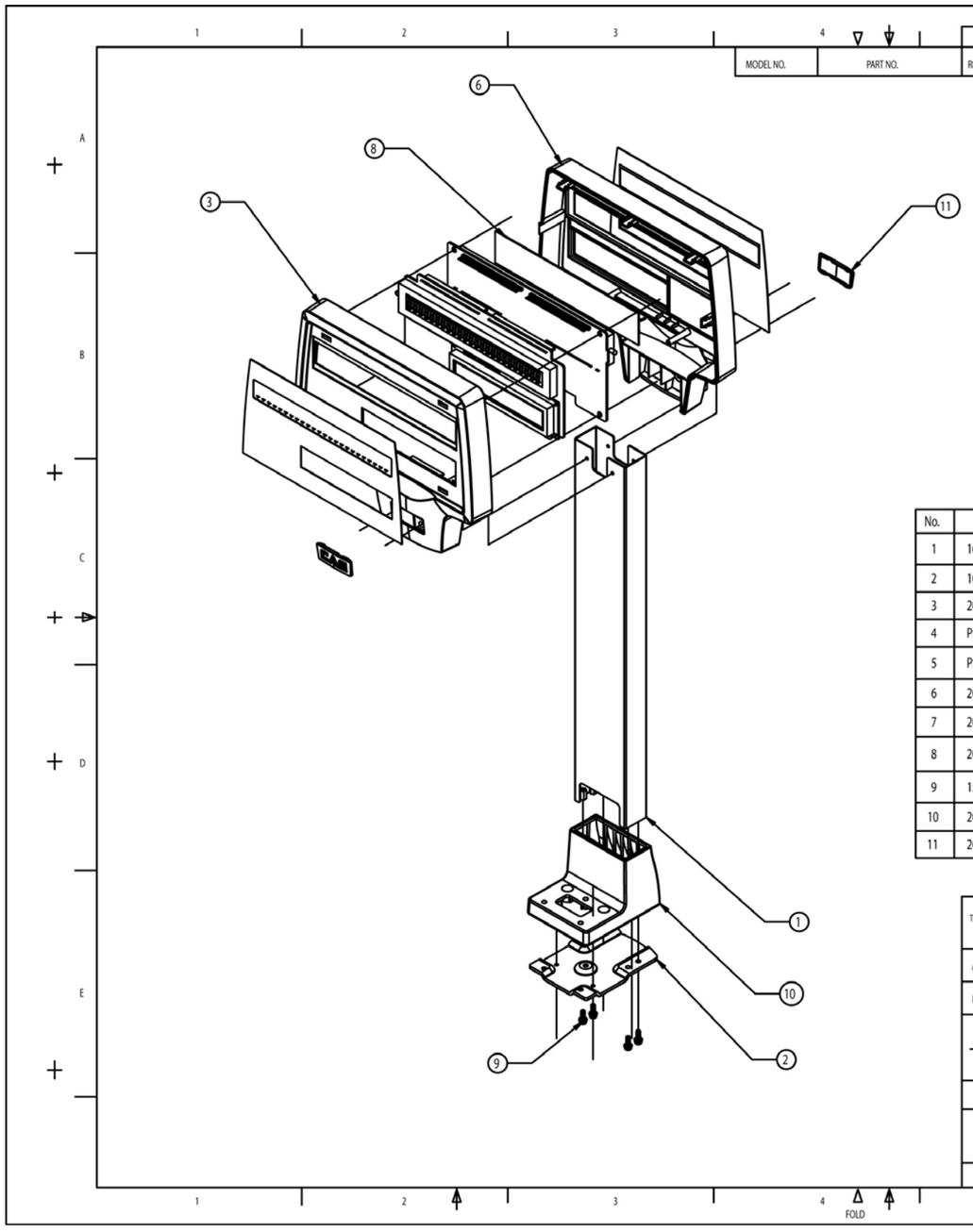


No.	Number	Description	Material	Spec	Q'ty
1	2004-A00-0094	UPPER CASE	ABS	CL5000 432*408*134	1
2	PPP-CLP-EDIP	Display PCB		CLP 375*85*86	1
3	1030-A00-0226	DOOR PLATE	SPC	CL5000 26*18*0.8	1
4	2100-A00-0233	MEMBRANE S/W		CL5000 STANDARD	1
5	1000-A00-0219	PAPER CUTTER	SUS	CL5000 77.5*15.3	1
6	2050-A00-0631	DISPLAY COVER	MITSUBISHI_522F	CL5000 206.5*43.2*1t	2
7	2050-A00-0632	DISPLAY COVER	Transparency PC	CL5000 141.5*43.2*1t	2
8	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	5
9	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	4
10	1810-A00-0005	SPEC PLATE	AL 0.5t	107.6*27.6*0.5t(DB-II)	1
11	2010-A00-0026	W/L GAGE COVER	LEXAN 0.5t	©¤18.5*0.5t	1
12	1563-A00-0308	RIVET	AL	¥ö3.2*8	2
13	9020-CL2-0000	PAPER CUT STICKER			1
14	9020-CL0-0005	TRAY STICKER			1

TOLERANCES :UNLESS OTHERWISE SPECIFIED	NAME OR TITLE: Upper Case Ass'y		CAS CORPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-KUN KYUNGKI-DO,KOREA	
ANGULAR :¦¼ ORD.				
DECIMAL :¦¼ ORD.	FIRST USED IN ASSEMBLY: SHOPPING SCALE		MATERIAL	
Q'TY/SET 1	FIRST MADE FOR: CL5000		END FINISH	
	CONTRACT OR CUSTOMEDR NO.: WORLD WIDE		DO NOT SCALE DRAWING	DIMENSIONS ARE IN MM,IN
DRAWN	CHECKED	APPROVED	SCALE: 1:3	PART NO.: PPP-CLP-MUPP / REV.

CAS FORM A3 (297mmx420mm)

10.9 Pole display (R-type)



MODEL NO.	PART NO.	REVISIONS REV	SYM	CONTENTS	DRAWN	CHECKED	APPROVED

No.	NUMBER	Description	Material	Spec	Q'ty
1	1000-A00-0220	POST PIPE	SUS 304	CL5000 30*70*430*1t	1
2	1030-A00-0221	SUPPORT	SPC 1.5t	CL5000 84.2*68.9*1.5t	1
3	2004-A00-0079	DISPLAY CASE	ABS	CL5000 (R TYPE FRONT)	1
4	PPP-CLP-EFDP	DISPLAY PCB(F) POLE	N/A	220*160*29.2	1
5	PPP-CLP-ERDP	DISPLAY PCB(R) POLE	N/A	CLP 220*160*29.2	1
6	2004-A00-0080	DISPLAY CASE	ABS	CL5000 (R TYPE REAR)	1
7	2050-A00-6330	DISPLAY COVER	PC	CL5000 (R TYPE)	2
8	2010-A00-0029	DISPLAY FILTER	PC 522F	CL5000 196.7*37.6*1t R TYPE	1
9	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	4
10	2007-A00-0002	DISPLAY BRACKET	PC(glass 25%)	CL5000 110*71*82.4	1
11	2004-A00-0099	NAME PLATE COVER	ABS	CL5000	2

TOLERANCES UNLESS OTHERWISE SPECIFIED
ANGULAR ∫¾ ORD.
DECIMAL ∫¾ ORD.
Q'TY/SET N/A / 1

NAME OR TITLE: DISPLAY CASE R TYPE

FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE

CAS CORPORATION
#19 KANAP-RI KWANGJEOK-MYON
YANGJU-KUN KYUNGKI-DO,KOREA

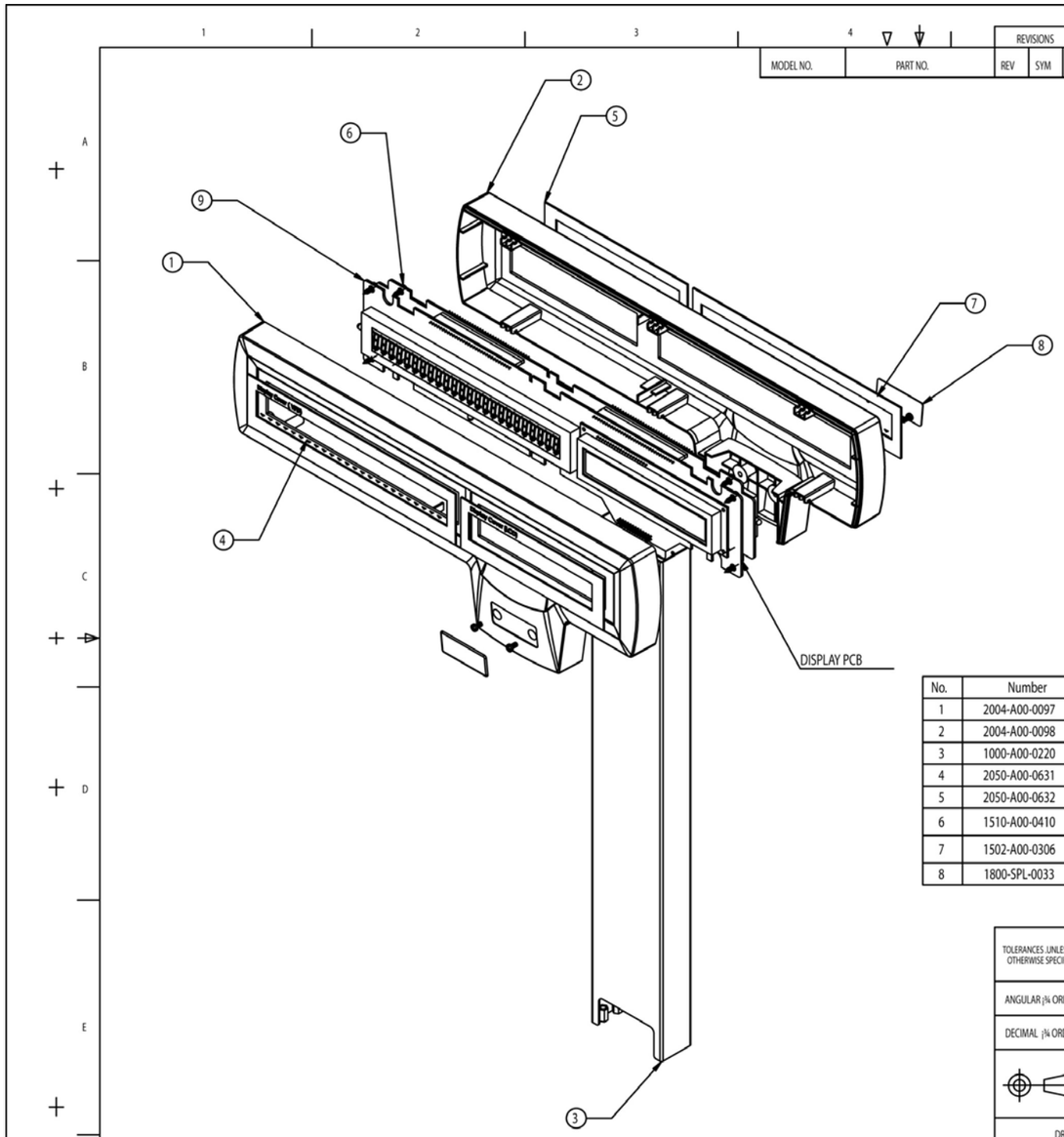
MATERIAL: N/A
END FINISH: N/A
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM,INCH

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1	PPP-CLP-PDIS	N/A

FOLD FOLD

CAS FORM A3 (297mmx420mm)

10.10 Pole display (P-type)



No.	Number	Description	Material	Spec	Q'ty
1	2004-A00-0097	DISPLAY CASE	ABS	CL5000 (P TYPE FRONT)	1
2	2004-A00-0098	DISPLAY CASE	ABS	CL5000 (P TYPE REAR)	1
3	1000-A00-0220	POST PIPE	SUS 304	CL5000 30*70*430*1t	1
4	2050-A00-0631	DISPLAY COVER	N/A	CLP TOOL(VFD)	2
5	2050-A00-0632	DISPLAY COVER	N/A	CLP TOOL(LCD)	2
6	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	8
7	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	4
8	1800-SPL-0033	NAME PLATE	EPOXY	SP-BL	2

MODEL NO. | PART NO. | REVISIONS (REV, SYM) | CONTENTS | DRAWN | CHECKED | APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED
ANGULAR ¡¾ ORD.
DECIMAL ¡¾ ORD.
Q'TY/SET N/A / 1

NAME OR TITLE: DISPLAY CASE P TYPE

FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE

CAS CORPORATION
#19 KANAP-RI KWANGJEOK-MYON
YANGJU-KUN KYUNGKI-DO,KOREA

MATERIAL: N/A
END FINISH: N/A
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM,INCH

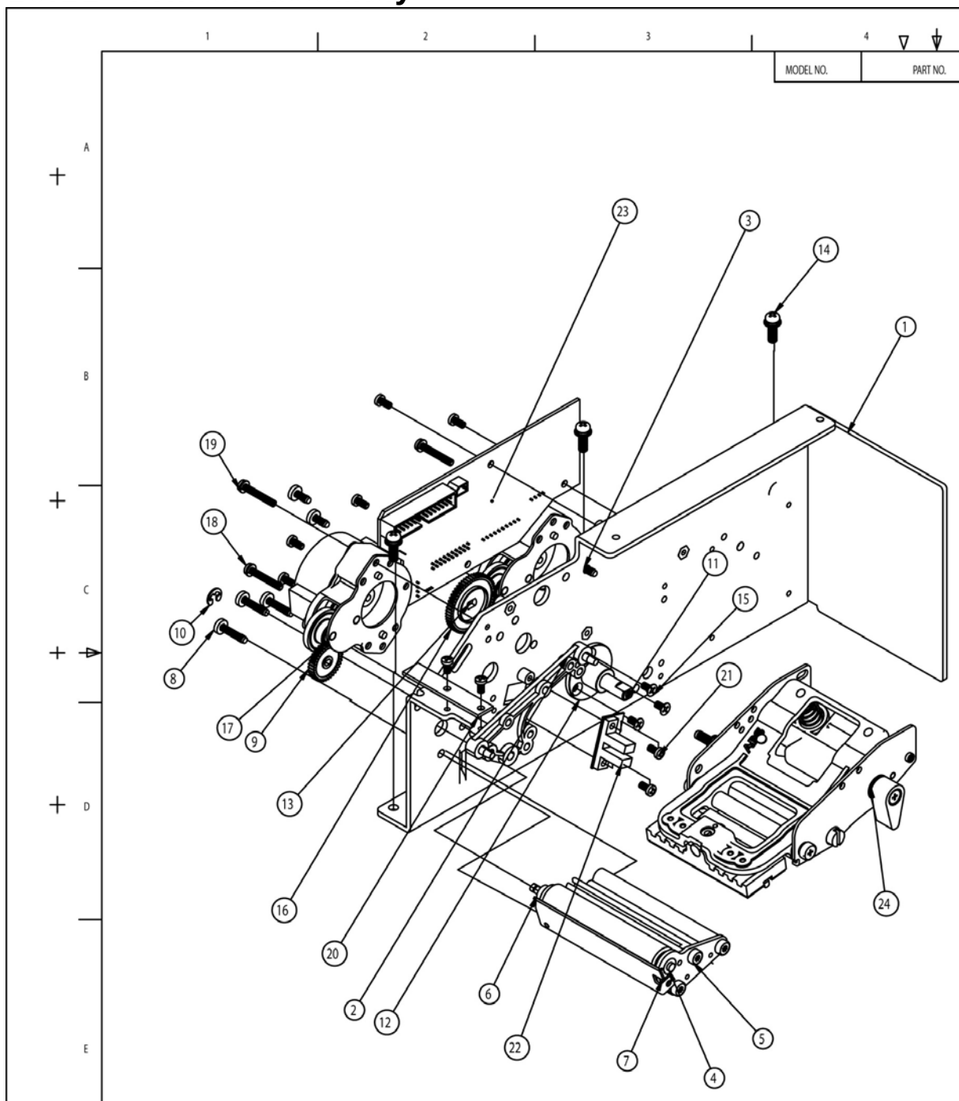
DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1	PPP-CLP-MDIS-1	N/A

2005¹â 11¡ù 15Ãî È¿ÀÀ ¡ÀÀù 9:47:46

FOLD FOLD

CAS FORM A3 (297mmx420mm)

10.11 Printer Assembly



No.	Number	Description	Material	Spec	Q'ty
1	1030-A00-0220	MECHANISM BRACKET	PO	CL5000 261*111*112.6	1
2	1100-A00-0069	PRINTER SPACER	AL_DIECASTING		1
3	1537-A00-0408	TAPTITE SCREW		M4x8	3
4	2620-A00-0030	SHAFT SILICON RUBBER	N/A		1
5	1150-A00-0010	LOWER FRAME ASS'Y	AL		1
6	1210-A00-0095	SHAFT BUSHING	BSSM-2		1
8	1537-A00-0415	TAPTITE SCREW		M4 x 15	3
9	2011-A00-0014	SPUR GEAR	ACETAL	OD_9.5 M_0.5	1
10	1561-MSU-0300	E-Ring	SUS	©ª3*©ª7*0.6	1
11	1210-A00-0094	SHAFT BEARING	SUS 304	CL5000 @7*37	1
12	2011-A00-0013	BUSHING BEARING	ACETAL	CL5000 @28*15.5	1
13	1561-MSU-0400	E-Ring	SUS	©ª4*©ª9*0.6-SUS	2
14	1503-A00-0412	MACHINE SCREW (WPH)	SCM	WPH M4*12	4
15	1501-A00-0306	MACHINE SCREW (FH)	SCM	M3 * 6	3
16	2011-A00-0015	SPUR GEAR	ACETAL	OD_29.4 M_0.5	1
17	6450-TMT-0001	NMB MOTOR ASS'Y		PM42M-048-XXXX	2
18	1502-A00-0320-0	SCREW-MACHINE(PH)		M3*20	4
19	1551-A00-0300	WASHER(SPR)		@3	4
20	PPP-CLP-EPSP	Peeloff Sensor PCB Ass'y		49*10*1.5	1
21	1502-A00-0306	MACHINE SCREW (PH)	SCM	M3*6	10
22	2010-A00-0001-0]	GAP SENSOR ASS'Y			1
23	PPP-CLP-ECTP	PRINTER PCB ASS'Y		130*60*1.6	1
24	6410-TPN-0002	APS PRINTER MACHANISM			1

MODEL NO. | PART NO. | REVISIONS REV SYM | CONTENTS | DRAWN | CHECKED | APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED
ANGULAR ¡¾ ORD.
DECIMAL ¡¾ ORD.
QTY/SET N/A 1

NAME OR TITLE: BASE BRACKET ASS'Y

FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE

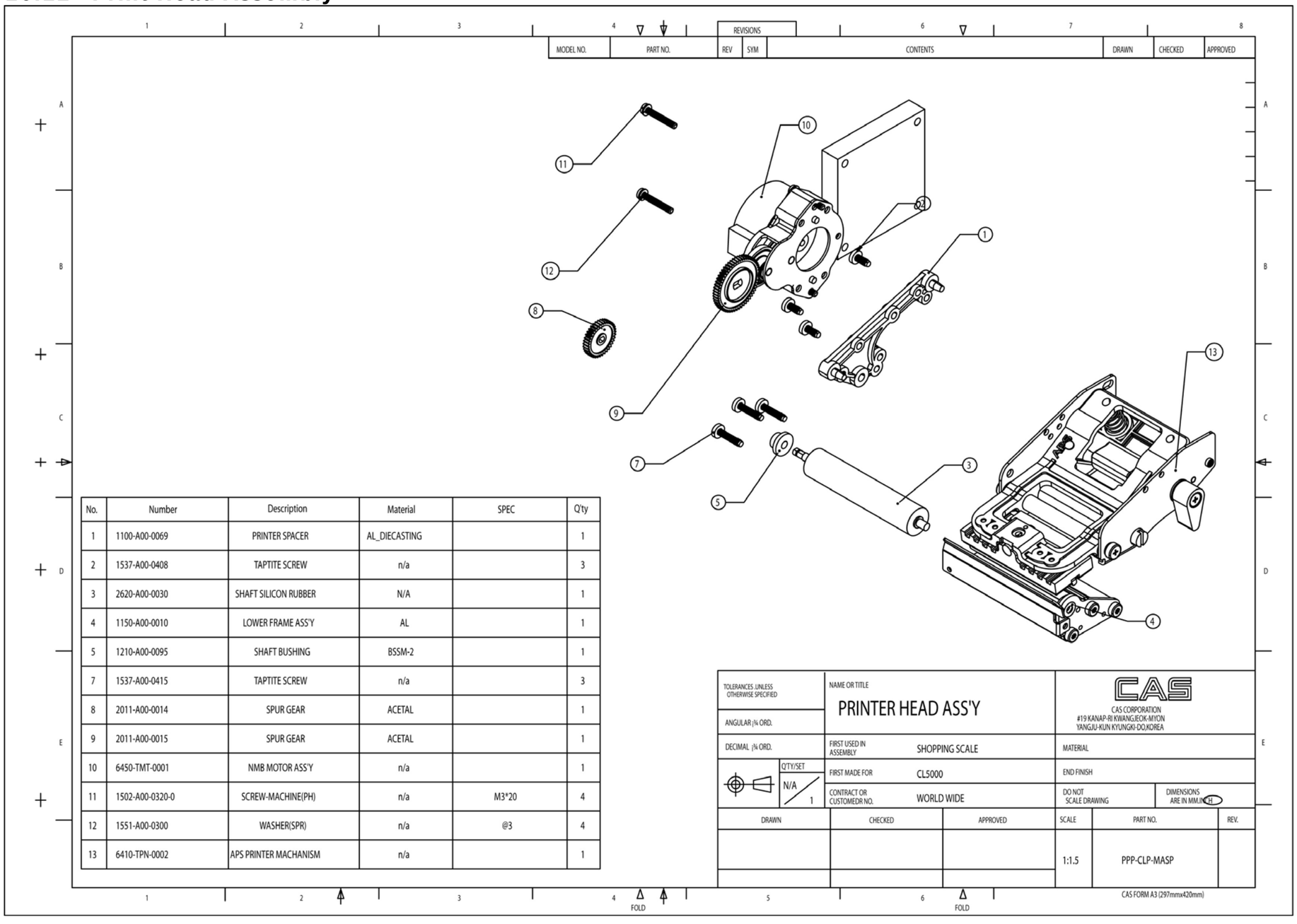
CAS CORPORATION
#19 KANAP-RI KWANGJEOK-MYON
YANGJU-KUN KYUNGKI-DO,KOREA

MATERIAL
END FINISH
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM.IN

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1.5	PPP-CLP-MBAS	

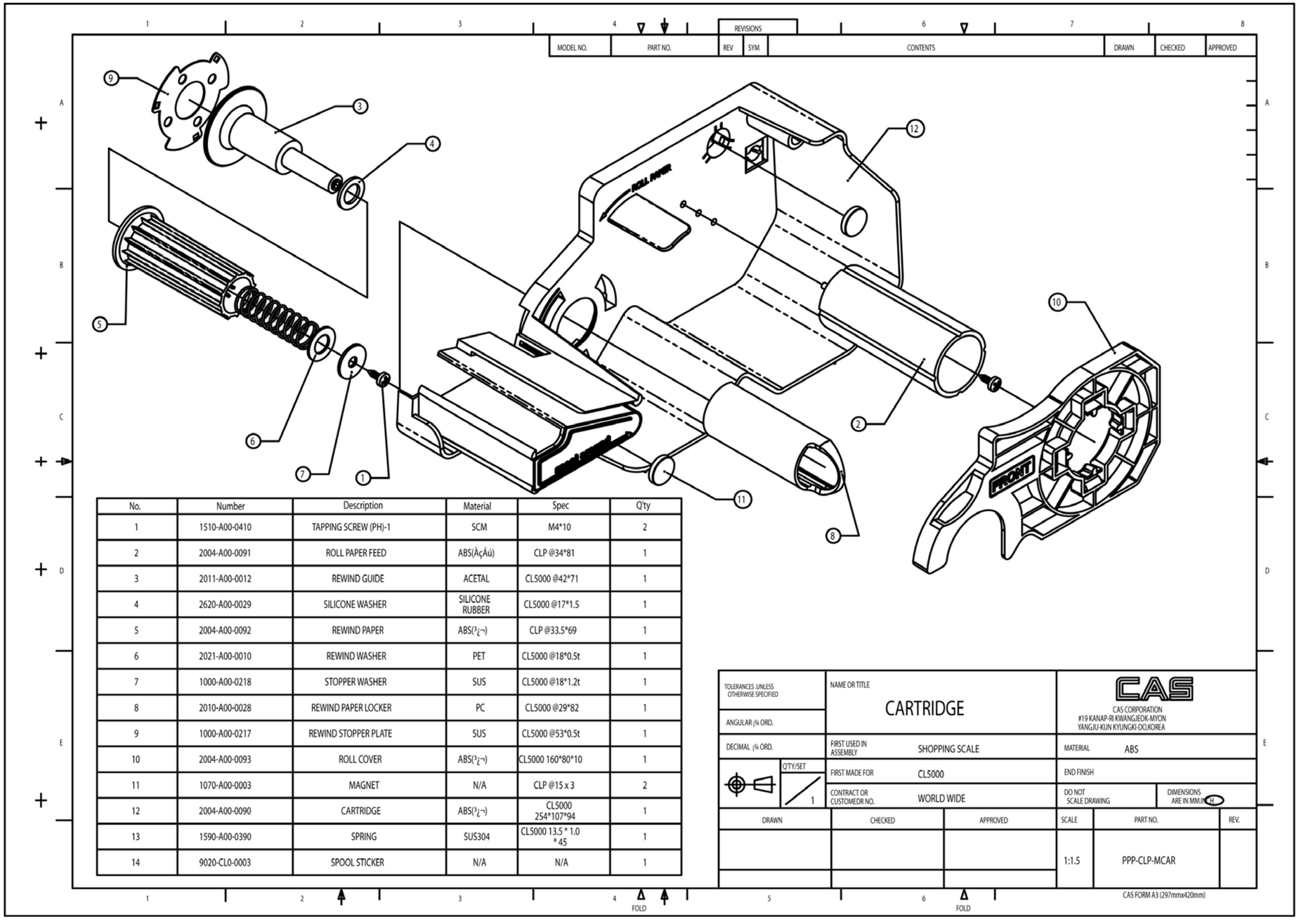
FOLD FOLD
CAS FORM A3 (297mmx420mm)

10.12 Print Head Assembly



No.	Number	Description	Material	SPEC	Q'ty
1	1100-A00-0069	PRINTER SPACER	AL_DIECASTING		1
2	1537-A00-0408	TAPTITE SCREW	n/a		3
3	2620-A00-0030	SHAFT SILICON RUBBER	N/A		1
4	1150-A00-0010	LOWER FRAME ASS'Y	AL		1
5	1210-A00-0095	SHAFT BUSHING	BSSM-2		1
7	1537-A00-0415	TAPTITE SCREW	n/a		3
8	2011-A00-0014	SPUR GEAR	ACETAL		1
9	2011-A00-0015	SPUR GEAR	ACETAL		1
10	6450-TMT-0001	NMB MOTOR ASS'Y	n/a		1
11	1502-A00-0320-0	SCREW-MACHINE(PH)	n/a	M3*20	4
12	1551-A00-0300	WASHER(SPR)	n/a	@3	4
13	6410-TPN-0002	APS PRINTER MACHANISM	n/a		1

10.13 Cartridge



No.	Number	Description	Material	Spec	Q'ty
1	1510-A00-0410	TAPPING SCREW (PH)-1	SCM	M4*10	2
2	2004-A00-0091	ROLL PAPER FEED	ABS(ÀçÁú)	CLP @34*81	1
3	2011-A00-0012	REWIND GUIDE	ACETAL	CL5000 @42*71	1
4	2620-A00-0029	SILICONE WASHER	SILICONE RUBBER	CL5000 @17*1.5	1
5	2004-A00-0092	REWIND PAPER	ABS(³¿¬)	CLP @33.5*69	1
6	2021-A00-0010	REWIND WASHER	PET	CL5000 @18*0.5t	1
7	1000-A00-0218	STOPPER WASHER	SUS	CL5000 @18*1.2t	1
8	2010-A00-0028	REWIND PAPER LOCKER	PC	CL5000 @29*82	1
9	1000-A00-0217	REWIND STOPPER PLATE	SUS	CL5000 @53*0.5t	1
10	2004-A00-0093	ROLL COVER	ABS(³¿¬)	CL5000 160*80*10	1
11	1070-A00-0003	MAGNET	N/A	CLP @15 x 3	2
12	2004-A00-0090	CARTRIDGE	ABS(³¿¬)	CL5000 254*107*94	1
13	1590-A00-0390	SPRING	SUS304	CL5000 13.5 * 1.0 * 45	1
14	9020-CL0-0003	SPOOL STICKER	N/A	N/A	1

TOLERANCES .UNLESS OTHERWISE SPECIFIED
ANGULAR ¡¾ ORD.
DECIMAL ¡¾ ORD.
Q'TY/SET 1

NAME OR TITLE: CARTRIDGE

FIRST USED IN ASSEMBLY: SHOPPING SCALE
FIRST MADE FOR: CL5000
CONTRACT OR CUSTOMEDR NO.: WORLD WIDE

CAS CORPORATION
#19 KANAP-RI KWANGJEOK-MYON
YANGJU-KUN KYUNGKI-DO,KOREA

MATERIAL: ABS
END FINISH
DO NOT SCALE DRAWING
DIMENSIONS ARE IN MM.INCH

DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1.5	PPP-CLP-MCAR	

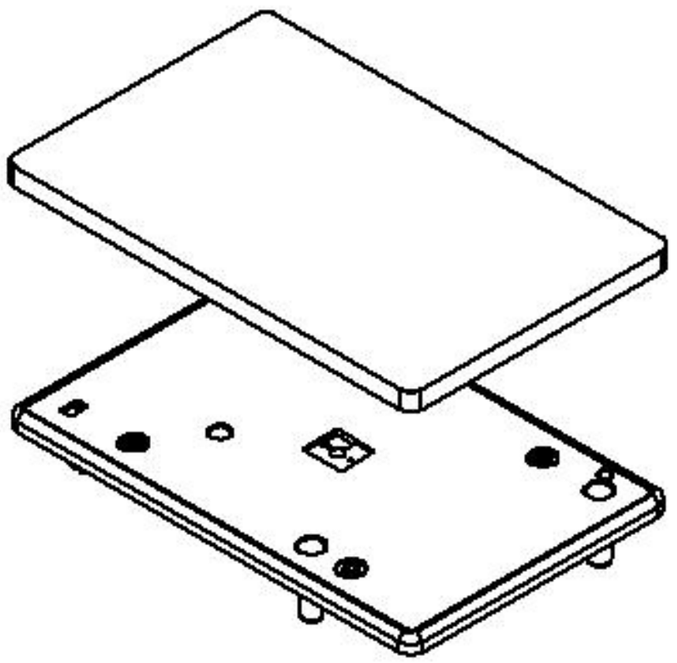
CAS FORM A3 (297mmx420mm)

FOLD FOLD

REVISIONS

MODEL NO.	PART NO.	REV	SYM	CONTENTS	DRAWN	CHECKED	APPROVED

No.	Number	Description	Material	Spec	Q'ty
1	2004-A00-0095	TRAY	ABS	CL5000 381*245 (ABS)	1
2	1000-A00-0216	TRAY	SUS 304	CL5000 382*264* 1t	1

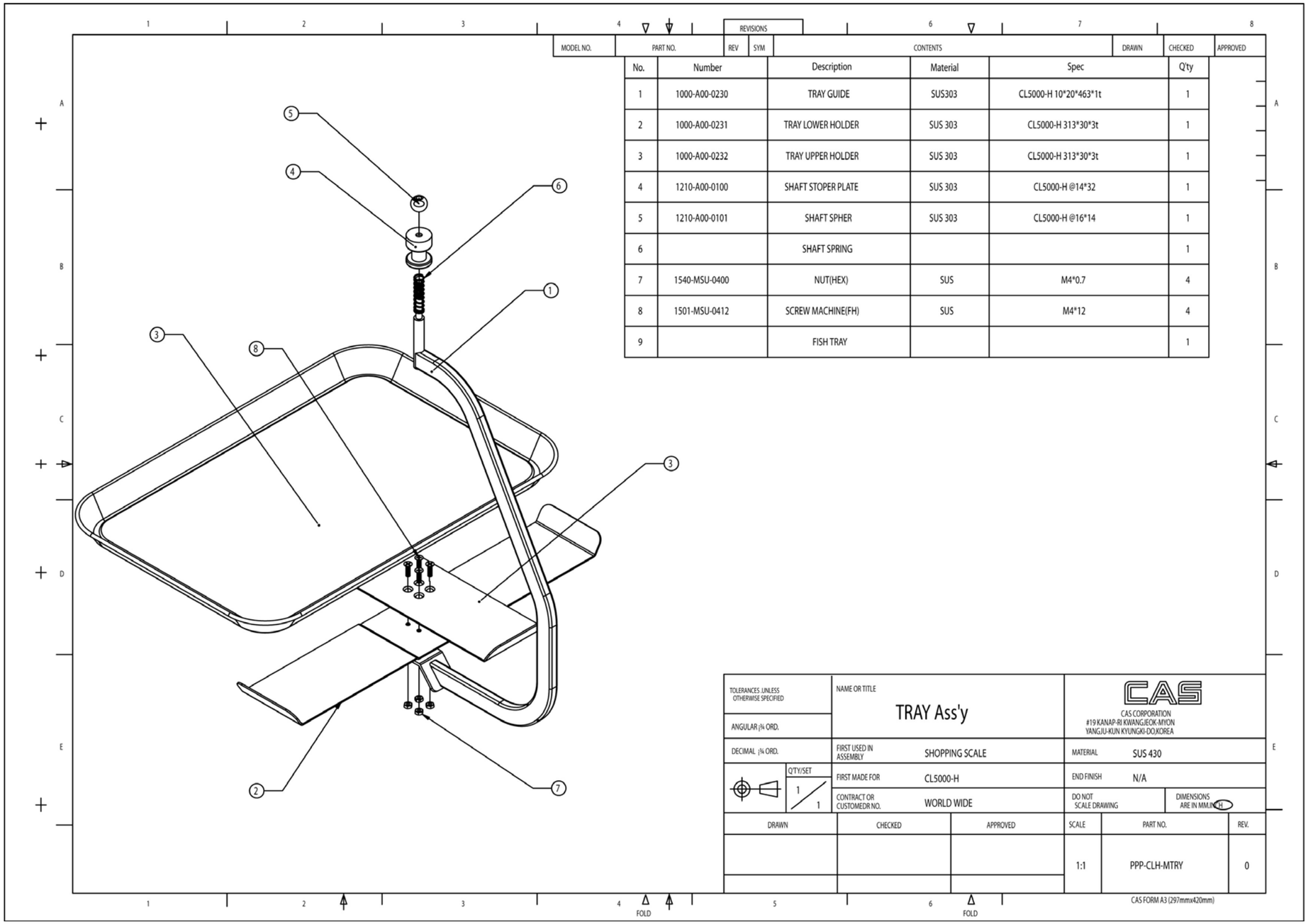


TOLERANCES UNLESS OTHERWISE SPECIFIED	NAME OR TITLE	CAS CORPORATION #19 KANAP-RI KWANGJEOK-MYON YANGJU-KUN KYUNGKI-DO,KOREA
ANGULAR ± 0'0.0.	TRAY ASS'Y	
DECIMAL ± 0.0.0.	FIRST USED IN ASSEMBLY: SHOPPING SCALE	MATERIAL
Q'TY/SET: N/A / 1	FIRST MADE FOR: CL5000	END FINISH: HIGH POLISHING
	CONTRACT OR CUSTOMER NO.: WORLD WIDE	DO NOT SCALE DRAWING / DIMENSIONS ARE IN MM,INCH

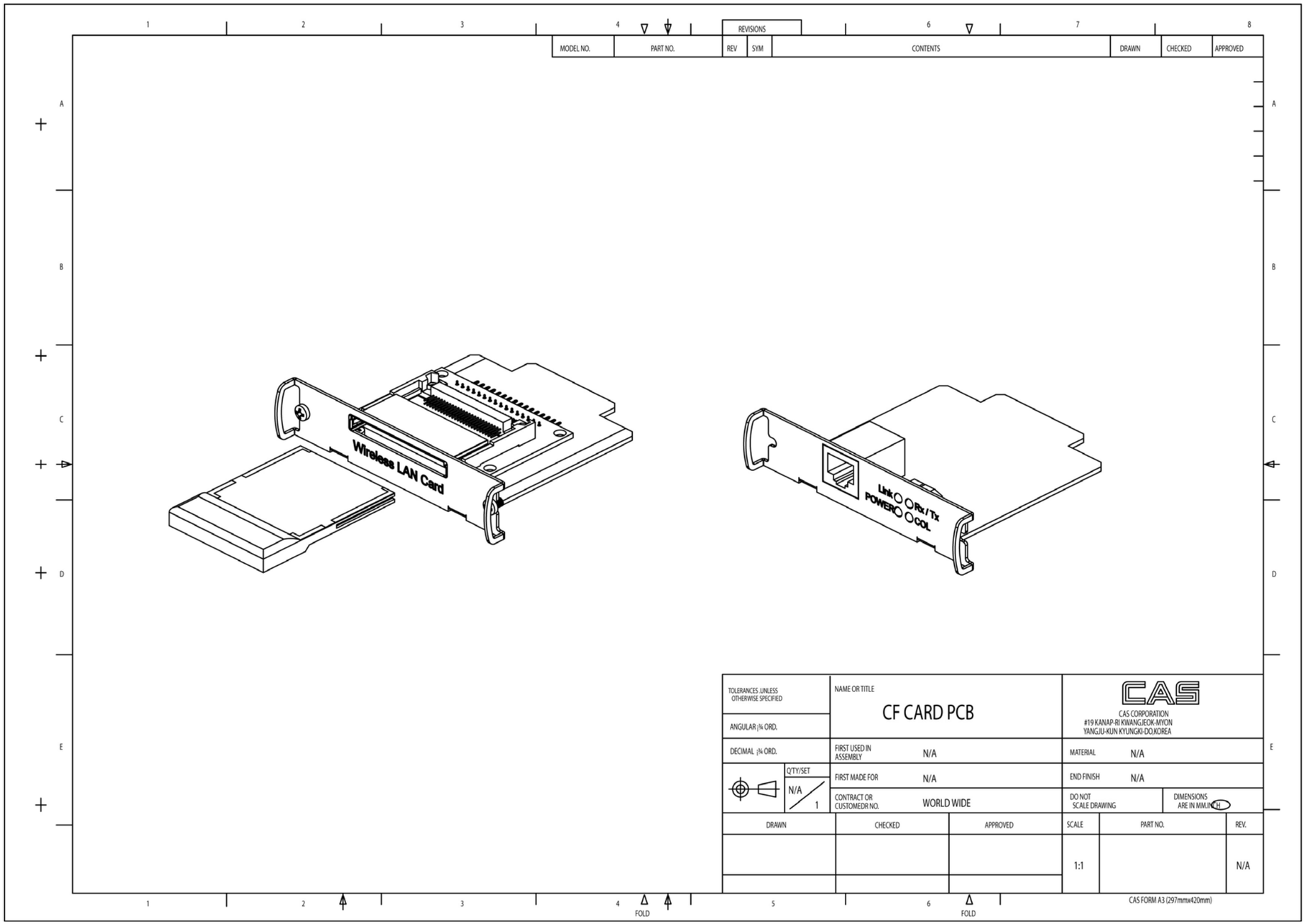
DRAWN	CHECKED	APPROVED	SCALE	PART NO.	REV.
			1:1	PPP-CLP-MTRY	

CAS FORM A4 (210mmx297mm)

10.15 Tray assembly (H-type)



10.16 Lan card



11. Part List

11.1 Electronic
11.2 Mechnical

12. Revision

11-Mar, 2005

-. Add Sealing Method

-. Adjust Chapter number

11 Dec 2014

- Corrected Exploded Views